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VICK'S ILLUSTRATED MONTHLY MAGAZINE



JUNE, 1900.

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VICK'S ILLUSTRATED MONTHLY MAGAZINE

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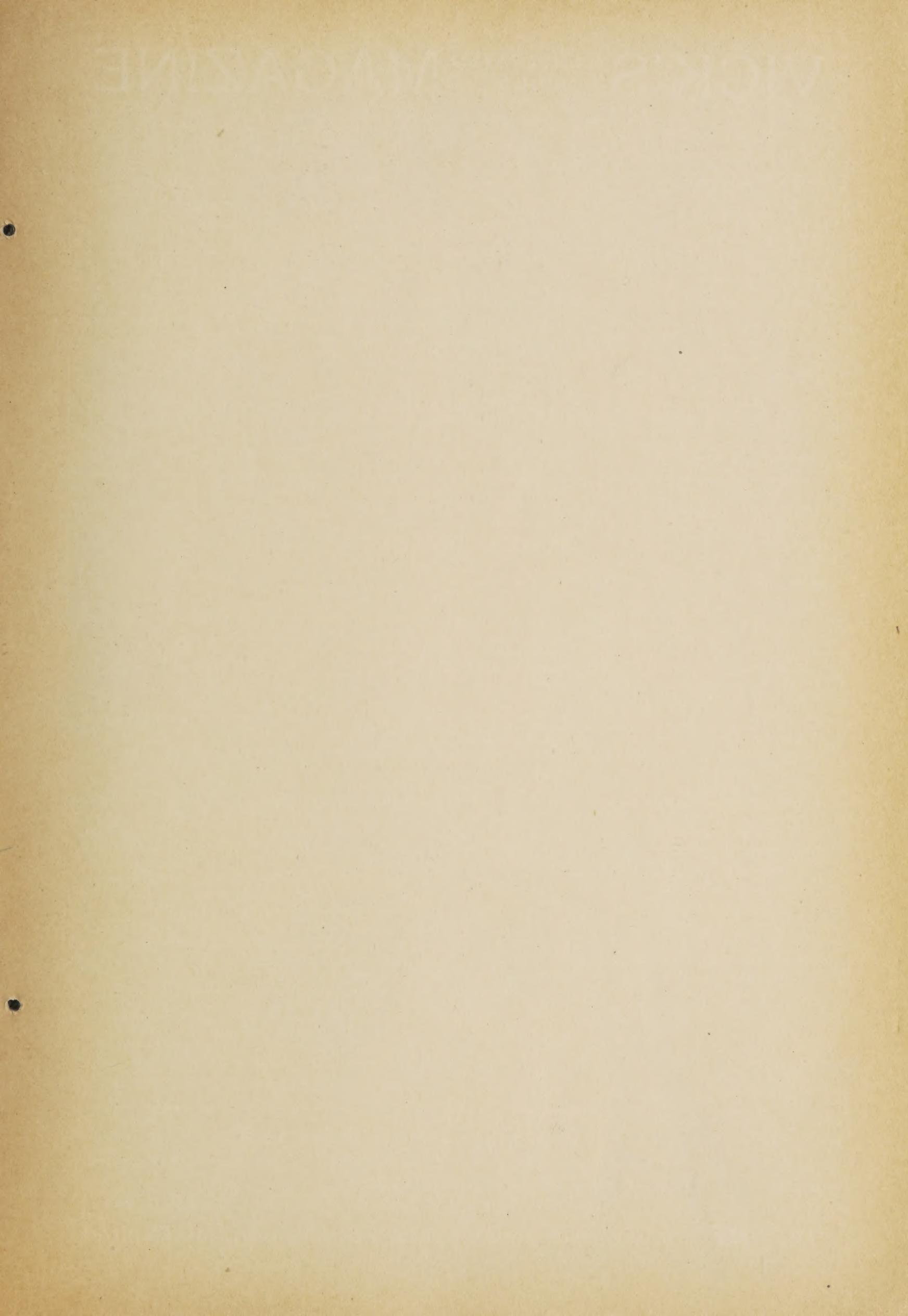
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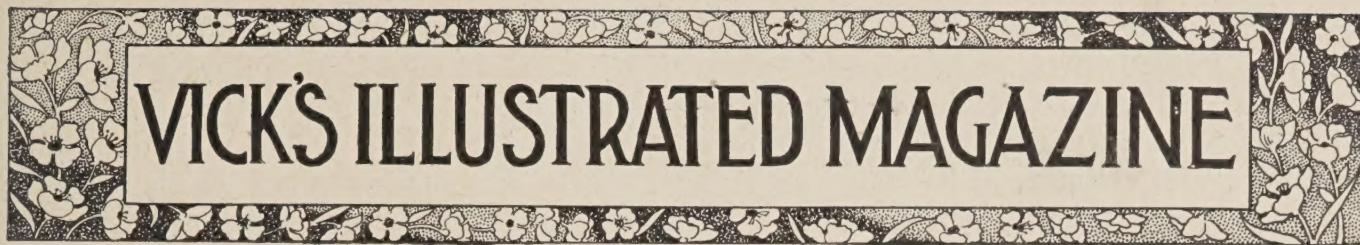
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LIBERTY.
Hybrid Tea Rose.



VOLUME XXIII.
SERIES III., VOL. I.

JUNE, 1900

No. CCLXX.
No. IX.

SOME OF THE NEW ROSES.

"So sweet, so sweet the roses in their blowing,
So sweet the daffodils, so fair to see;
So blithe and gay the humming-bird a-going
From flower to flower, a-hunting with the bee."

THE month of June in this country is pre-eminently the month of roses, and so a good time to read about roses, old and new, and all that they hold in reserve for us of beauty and fragrance. To write about roses, so dominating is the beauty and sensuousness of these flowers, one must feel something of the divine afflatus even if unable to express it in musical murmurs. Without excuse, therefore, other than that they have not before been seen, the few lines following are offered, being a free translation from a French author, believed to be Aimé Martin:

In the land of the East, on hills and in vales,
The beautiful rose will shortly appear,
And when it expands its fragrance exhales,
And the nymph is delighted whom it regales;
And she thinks that Venus reborn is now here,
The Queen of the Flowers whom all will revere;
The rose is astonished; with modesty's blush
Her beautiful face with bright red is aflush.
Entranced by her charms the nightingale sings,
Avows that unfailing shall e'er be his love,
Breathes the ravishing fragrance and spreads his
glad wings
And suddenly soars to the free air above.

Is it inconstancy? If so, how like the love of the rose that so many profess! A love that impels to no action, no care, no self-denial. Dean Hole, who has said so many practical things about the rose, which he, like many others, calls the Queen of Beauty, and the Queen of Flowers, in his "Book about Roses," says:

For the flirt, for the faint hearted, for the coxcomb, who thinks that upon his first sentimental sigh she will rush into his arms and weep, she has nothing but sublime disdain. . . . Not many summers since, three individuals, of whom I was one, were conversing in a country home. One of my companions was about to succeed the other as a tenant of the house in which we were met, and was making anxious inquiry about the garden in general, and concerning roses in particular. "Oh," said our host, "the place is too much exposed for roses. No man in the world is fonder of them than I am, and I have tried all means, and spared no expense, but it is simply hopeless." "Must have roses," was the quiet commentary of the new-comer; and two years afterwards I met him at the local flower-

show, the winner of a first prize for twelve. "My predecessor," he said, "was no more the enthusiast which he professed to be about roses, than that Quaker who had felt so much for his afflicted friend, but had not felt in his pocket."

Everyone who has tried to raise roses knows that there are difficulties to be met in the work, but there are few places where one who is earnest, energetic, industrious and persevering may not succeed. But this is a digression, for the purpose of this writing is not to treat upon the culture of roses, but of the characters of some of the newest varieties. But before passing directly to the subject proposed, the writer would ask, what is the enchantment of the nightingale for the rose, or is it only a fancy? Dean Hole speaks of "the gardens of Bagshot where nightingales sing." And the poet, Gil Vincente wrote;

"The rose looks out in the valley,
To the very vale where the nightingale
Sings his song of woe."

Of course in this connection will recur to the reader the well known lines of Moore, in Lalla Rookh:

"There's a bower of roses by Bendemeer's stream,
And the nightingale sings round it all the day long.
In the time of my childhood 'twas like a sweet dream,
To sit in the roses and hear the bird's song."

But the rose in this country has no nightingale for an admirer, and therefore the question may be left to British and European poets, while we concern ourselves with the rose herself, who, it is believed, displays her charms as fully here as anywhere in the world, not everywhere alike, for the winter season of some sections is too severe for some kinds, and the drying, scorching winds of other regions are beyond the endurance of even what are considered hardy varieties, but in all parts of the country with ingenious appliances, some of the beautiful varieties of roses may be raised.

LIBERTY—A HYBRID TEA.

The frontispiece this month shows a late acquisition that has proved itself to be of

more than ordinary value. A year ago an account was given in these pages of Liberty rose, and the promise it gave of superior qualities. Another year's testing has shown that the original estimate of its character was correct, and now it stands unrivalled as a dark

sold the entire stock of it to Ernest G. Asmus, of West Hoboken, N. J., who has since propagated it, and this spring, in March, it was first sent out and is now in the hands of the public. The flowers from which the sketch was made for our colored plate this month were kindly supplied us, last January, by Mr. Asmus. Mr. Asmus, who has had a large experience as a rose grower, states that Liberty blooms still more freely than Meteor, which is considered an abundant bloomer. In a house containing 1035 plants, during a period of four months ending the 1st of January last year, he cut an average of twenty-two blooms from each plant. A writer in *American Gardening*, last year, referring to this rose when exhibited before the Horticultural Section of the American Institute, said, "this rose attracted the immediate attention of all comers, and much discussion took place as to how best describe its marvelous color, but in no other detail was opinion divided, for all agreed that it was *facile princeps* in the ranks of dark red roses. Whether by daylight, when the sun's rays add fire to the clear ruby petals, or at night when a more or less yellow flame affords illumination, this rose ranks equally well." Our readers have already been told how that at the exhibition of the American Rose Society in New York, in March last, Liberty won the cup offered



From a painting by A. Niczky

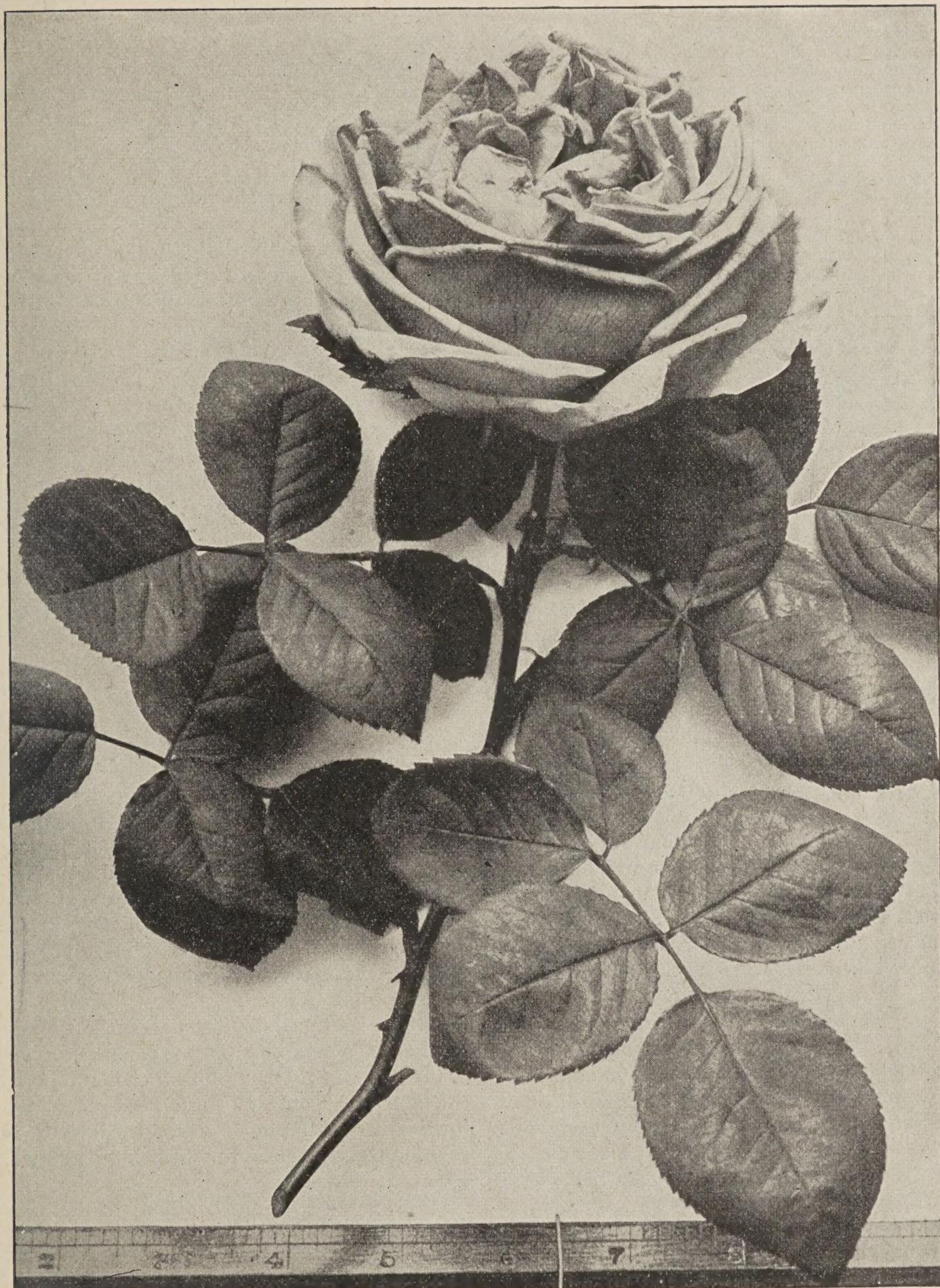
red rose suitable for winter forcing or for garden culture. It will, no doubt, quickly supersede Meteor for the former purpose, as the latter requires a higher temperature than most other roses under glass. Liberty is a seedling resulting from a cross of an unnamed seedling of Mrs Grant (Belle Siebrecht), and Victor Hugo, a hybrid perpetual, and was raised by A. Dickson & Sons, of Ireland, who

JUNE ROSES

for the best fifty blooms in the show.

QUEEN OF EDGELY — HYBRID PERPETUAL.

The rose which, next to Liberty, caused the greatest sensation at the Rose Show in New York, at the March exhibition, was Queen of Edgely, a hybrid perpetual of a soft pink color. It was greatly admired there by critical connoisseurs, and drew many expressions



HYBRID PERPETUAL ROSE
QUEEN OF EDGELY

of gratification from the New York press. The originators of this rose have supplied a photograph of it from which has been made the engraving that appears on this page. They have also written us under date of April

20, 1900, an account of it which here follows:

This rose appeared as a sport of the American Beauty four years ago, and it has been under our careful observation and culture ever since. The rose is a vigorous grower — many stems being six to eight feet tall, and bears a fine large flower, measuring when expanded from five inches

even to seven inches. The color is a bright pink—like Testout or Bridesmaid, and instead of turning blue, it fades a still lighter shade of pink. The fragrance is as marked and as delicious as that of the summer roses in the June garden. In habit and foliage it is identical with the American Beauty—the vigorous, dark green leaves coming close up to the bud.

The rose was first shown to anyone on March 27, 1900, at the Rose Show, Eden Musée, New York, where it made a sensation and was awarded a certificate of merit—the only prize possible for it to win—as a new-comer. The Philadelphia Florists Club, April 3d, adopted the report of the Judges, two of whom had won the week previous, first prizes for American Beauty at the Rose Show. This is the report in full:

"We are convinced that this variety is a valuable addition to the list of forcing roses, being in every respect, except color, the exact counterpart of American Beauty. The color is a beautiful bright pink—which is good even in full flower. The fragrance is also as fine as Beauty, and the exhibited blooms showed remarkable vigor."

At the meeting of the Pennsylvania Horticultural Society last Tuesday, April 17, a silver medal was awarded the rose.

We will be ready to introduce it to the market in March, 1901, and are building a range of houses in which to grow it for cut blooms.

THE FLORAL EXCHANGE, INC.,
Henry C. Geiger, Sec.

A YELLOW HYBRID PERPETUAL.

It appears from an account given by M. Edouard André, in *Revue Horticole*, that a yellow remontant or hybrid perpetual rose has been produced by M. Pernet-Ducher, the well-known and worthy rosarian of Lyons, France. This variety is now well fixed and is to be sent out the coming autumn. According to the writer mentioned, the originator undertook in 1883, the hybridising of a number of H. P. roses with the Persian Yellow. The only variety which he succeeded in fertilizing with the pollen of the Persian Yellow was the variety Antoine Ducher. In 1885, one of the young plants produced from the cross, or rather hybridization, since the pollen parent was of a race distinct from that of the seed-bearing plant, showed a nasturtium red color striped with yellow. The form of the flower was globular, very full, and the undersides of the petals equally as yellow. The most of the seedlings from the same source showed grave defects, and no improvement among them appearing, from year to year, these were destroyed in 1888. One only showed superior qualities and was preserved, and this formed a strong bush which covered itself with flowers progressively improving. In 1893 they showed themselves in all their beauty of full size, of a particular color, constituting a novelty of the first order. The originator gave it the name Soleil d'Or (Golden Sun). Since that date he has multiplied and improved it by grafting and re-grafting from the branches the most remontant in character, as horticulturists do

to augment the propensity of a variety. At the present time, says the writer, Soleil d'Or may be frankly accorded a place in the remontant or hybrid perpetual class, but it will be necessary always to propagate from shoots or branches that have flowered. The provision here stated should be a warning to florists and nurserymen against excessive propagation, an indiscretion which visits with weakness and imperfections many a plant novelty. The horticultural description of the plant is thus given:

Plant vigorous, with erect, fine branches with smooth, reddish brown bark, armed with slender, recurved thorns. Leaves numerous, with medium-sized, pointed oval, dentate leaflets of a shining handsome green. Sepals long and pointed. Bud conical, of a beautiful yellow. Flower medium size or large, globular, very full, with the petals conduplicate in groups; color orange-yellow, more or less intense, passing to aurora red shaded with nasturtium red, the whole mingled in pleasing proportions rendering the appearance very charming.

M. André remarks that this variety is a charming acquisition, that the shades of color of the flower are difficult to describe; they resemble nothing at present known. The varieties of the rose are so numerous that the success of this one will result entirely from its original character.

But its success is already assured. Exhibitors for the first time at Lyons, in the autumn of 1898, then at Tour, in June, 1899, at the Congress of Rosarians at Paris, in July, 1899, and elsewhere, the rose Soleil d'Or has excited general admiration.

With proper pride in his success, M. Pernet-Ducher considers this rose the commencement of the series of a "race" for which he proposes the collective name of Rosa Pernetiana, following the example of Philippe Noisette in relation to the section to which his name was given.

If this variety should continue to maintain the good qualities ascribed to it, and the regard which is at present accorded it by those who have seen it, it will be a brilliant conclusion of the rosarian art at the close of the nineteenth century.

SOUVENIR DE PIERRE NOTTING—TEA.

The illustration presented of this rose has been drawn after an engraving published in the *Deutsche Garten Zeitung*, and the following

*Pernetiana Rose*

account prepared from one that appeared in *Semaine Horticole*. The originators of this variety are the well-known rosarians Soupert et Notting, of Luxembourg. The plant is the result of a cross between Maréchal Neil and Maman Cochet, two varieties of the highest merit. It surpasses the latter variety in grace of form and in other points of beauty, and in flower-producing capacity is said to be superior to all known varieties. This is a most remarkable claim, but there is no good reason

YELLOW HYBRID PERPETUAL ROSE
SOLIEL D'OR

to doubt it. The plant is very vigorous, wood reddish, the leaves are of a handsome deep green. It is said to be quite hardy, and we may attach to this statement that degree of credence that our experience justifies, and it is also said to be quite resistant to mildew.

The flowers are large, very full, well-formed and open freely; the color is apricot-yellow, washed with golden yellow and mixed with orange yellow, the borders of the petals being shaded with beautiful carmine rose; the bud

is long, of fine form. The blooming season continues through a number of weeks. This variety has been shown at some of the great flower expositions and received the highest awards as well as the admiration of both amateur and professional growers. Undoubtedly much is to be expected from Souvenir de Pierre Notting.

NUMBER 1900.

Under this title the famous rose-growers, Dingee & Conard Co., of West Grove, Pa., are sending out a new seedling hybrid tea rose. This variety is the result of a cross between those two famous hybrid tea varieties Kaiserin Augusta Victoria and Madame Testout. The plant is said to be equal or superior in hardiness and vigorous growth to the parent varieties, "while for beauty of flowers, both in form and color," say the originators, "it surpasses any rose in the list." The color does not appear to be stated, and it can be judged only by the colored plate of it shown in their catalogue of this spring, where it appears as a very large rose of a clear bright scarlet. In the March number of their monthly publication, *Success with Flowers*, an account is given of this new variety, from which the following quotations are made: "To say that a rose is better than American Beauty is a broad assertion, but this variety, everything considered, is superior to that queen of roses. For the amateur grower it unquestionably will become the best rose that has ever been sent out in this country. Among a collection of over a thousand varieties it stands first for vigorous growth both in open benches and in pots. For this latter purpose it will become the most popular of all roses. * * * There is nothing puny or delicate about this rose. It throws out strong, fibrous roots quickly and produces a handsome bush. * * * It has not a single drawback, while it seems to possess all the characteristics that might be asked for in any one rose. No one need fear failure with it, and whether grown indoors in pots, or in the open ground, it will outgrow and outbloom any rose in our collection, which now embraces over one thousand varieties. It blooms continuously throughout the year, bearing handsome flowers in great profusion." Rose-growers are certainly to be congratulated on this acquisition as well as those previously noticed.

MAGNAFRANO.

Under this name the Conard & Jones Co., send out this season a new hybrid tea, the

result of a cross between the hybrid perpetual Magna Charta and the tea Safrano. It combines, they say, the hardiness and vigor of the former with the free-blooming habit and delightful fragrance of the tea roses. The flowers closely resemble Magna Charta in size and fullness, but are more double, and the color is clear deep rose; very beautiful and delightfully sweet. It is a strong, healthy grower and constant and abundant bloomer. Such is their description, and they recommend it for garden planting and for cut flowers.

These new hybrid tea varieties are particularly interesting to the amateur grower whose dependence is upon roses that he can successfully raise in the open garden, for these kinds can be protected with more assurance of successful endurance through the rigors of our northern winters than can the more delicate tea varieties, and in beauty and fragrance they are, in most cases, quite equal to the latter, and at least very nearly approach them in profusion and continuity of bloom.

OTHER NEW HYBRID TEAS.

Among new hybrid tea varieties of European origin may be mentioned Hofgarten-Director Græbner, which may be very fine notwithstanding its name. It is from the German rose-grower Lambert, to whom we are indebted for numerous good varieties. It is described as a vigorous, upright grower and abundant bloomer. The flower is a rosy yellow or coppery-orange yellow. A cross between Caroline Testout and Antoinette Durien.

Balduin is a new variety by the same grower, and is for sale in this country by Ellwanger & Barry of the Mount Hope Nurseries, Rochester, N. Y. They describe the flower as "bright glowing carmine; flower large and full and borne in great profusion; fragrant." A defect of this otherwise fine variety is too large a proportion of "off color" buds.

Welter & Hinner, German growers, sent out two varieties of hybrid tea, each of which is the result of crossing Kaiserin Augusta Victoria with W. F. Bennett, and a second cross by Comtesse de Frigneuse. These are as follows: Johannes Wesselhoft; plant vigorous, branching; flowers sulphur yellow, passing to clear yellow, large, full, very fragrant; bud long and with a long stem.

Palmengarten-Director Siebert. Plant vigorous, erect, very abundant bloomer; flowers a soft, pure rose color on a yellowish-white foundation, exterior petals yellowish rose,



TEA ROSE
SOUVENIR DE PIERRE NOTTING

large, very full, long bud, opening well, petals recurved, flower stem long, bearing a single flower.

The Mount Hope Nurseries also offer Daisy, a hybrid tea of Dickson & Sons. Rosy pink, suffused silvery pink; large, full, and perfectly formed; fragrant. Also Killarney from the same originators. Color flesh, shaded white, suffused pale pink flowers, large buds, long and pointed; blooms profusely throughout the season.

The hybrid tea variety Gruss an Teplitz, sent out in this country a year ago, and at that time noticed in our pages, is now presented to the public by Dingee & Conard Co., under the name of Virginia R. Coxe, at the same time announcing that the change of name is made for its easier use in this country, and is done

by the consent of the originator, Peter Lambert, of Germany. The new name is that of an American woman, a descendant of the famous Randolph family of Virginia. This variety is one of the best of the hybrid teas, a free grower and great bloomer, flowers large, scarlet shading to crimson, and do not fade; very fragrant. It is specially recommended as a garden rose that will survive severe winters with moderate protection. Ellwanger & Barry offer it under its original name.

The hybrid tea Admiral Dewey, sent out last year sustained its excellent reputation at the exhibition of the American Rose Society in March last, and will probably appear again at the show of the same society this month.

NEW MEMORIAL ROSE—ALBA RUBIFOLIA.

This new variety is sent out by the Conard & Jones Co., and from the account given in their catalogue it appears to be an acquisition of merit. The following is their description: This is a cross between the Wichuraiana and Coquette de Lyon, and as the flowers are pure white, and much of the foliage and young

center, and borne in great profusion for weeks at a time. It is entirely hardy, needs no protection; always looks bright and cheerful, and is undoubtedly the finest memorial rose for cemetery planting yet introduced.

NEW POLYANTHA ROSE—SNOWBALL.

This variety is offered by Peter Henderson & Co., in their catalogue of this year. They do not give its origin, but the following is their account: "In Snowball we have one of the most charming acquisitions imaginable, of a dwarf, compact habit, with rich green foliage, and a bounteous blooming quality which is really wonderful. Twenty-five to fifty blossoms, white as snow, and resembling camellias in compactness and purity of color, are produced in large clusters, literally covering the plant, and emitting a sweet, delicate odor. As a post or border plant, its abundance of flowers, vigorous constitution, and attractive fragrance give it advantages beyond all others in this section of roses."

According to this description it must be an attractive little plant that will prove useful in the garden in many ways, though, unless it is in the quality of fragrance, its superiority to Little White Pet, of the same class, is not apparent.

NEW EUROPEAN ROSES.

A number of new and recent roses of European origin of tea, hybrid tea, and hybrid perpetual varieties are offered in the various catalogues of the present season, which space will not admit of our noticing. Some of these may prove to be

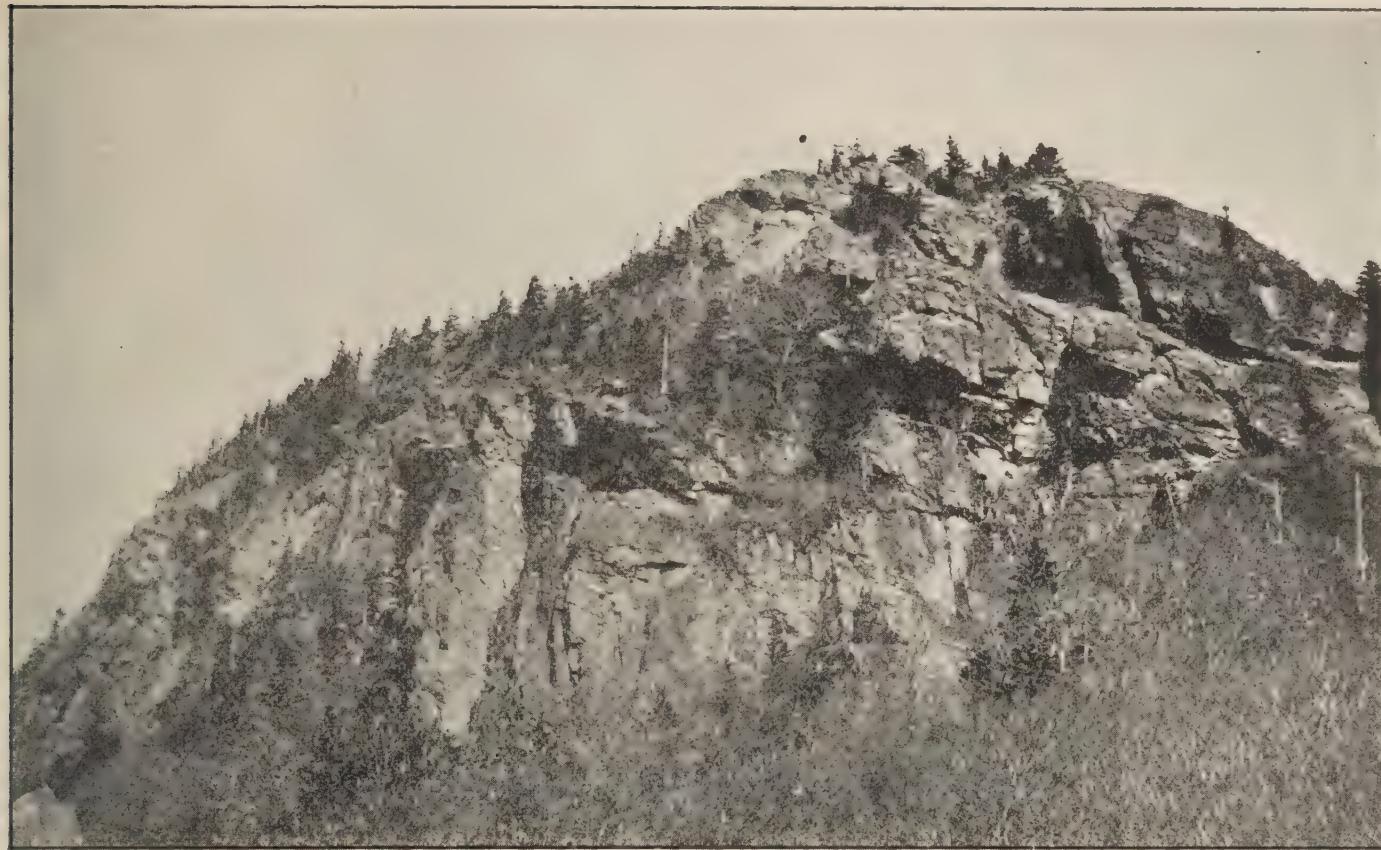
growth bright red, it is appropriately named Alba Rubifolia. When trained up to a post or pillar it soon makes a beautiful weeping bush, or it may be left to form a deep mat of leaves and flowers on the ground. It is evergreen and retains its foliage all winter, which adds greatly to its beauty. Its round, thick leaves are so bright and glossy, they shine as if varnished. The flowers are large and fragrant, perfectly full and double to the

particularly meritorious and come into prominence, but many others will doubtless be dropped out of the lists after longer trial. Those that prove to be superior will in due time receive the recognition they deserve. Some of these will be shown next month at the exhibition of the American Rose Society in New York, and thither the rose worshipper will wend his way as devoutly as the Islamite to Mecca.

C. W. S.



HYBRID TEA ROSE
NUMBER 1900



EAGLE CLIFF, A SPUR OF ROAN MOUNTAIN
IN THE ROCKY CLEFTS GROW RARE ALPINE FLOWERS

ROAN MOUNTAIN AND VICINITY.

THE ROAN is much more easy of ascent than most mountains of its height,—not because of good roads near its base, for on the Carolina side there are practically none,—but because on the side followed by the old, gullied trail the ascent sweeps gently up to the mountain's grand summit level of 6,394 feet above the level of the sea.

The lower zone of the mountain, ringed off at the top by the superior limit of Indian corn, shuts in the traveller with a firmament of deep, cool foliage. In this Alleghany region now stands the largest body of hardwood timber in the temperate zone, in an opulence of variety almost unequaled. "This is the forest primeval," and the grand old trees stretch up to a hundred or more feet in height, with a girth of twenty. We counted while on this expedition about twenty-five species that would cut fifty-foot timber stocks. Even the silver-bells grow to enormous size. Some of the other giants are pines, hickories, black walnut, cucumber magnolia, tulip poplar, white ash, black locust, red and sugar maples, black gum, sycamore, black cherry, basswood, chestnut, buckeye, beech, black birch, red, white and chestnut oaks, balsam, hemlock and black spruce.

These were only the giants of that green gloom. Resting in the evening on the porch of a little cabin that hospitably sheltered us for the night, we counted between sixty and

seventy distinct tree species that grew along about a dozen miles of road. The moisture of these great forests has been their safe guard against fire, and the great trees are unscarred.

The picturesque old trail we had chosen now and then scrambled across patches of sunlight where man had made faint imprints upon this wilderness, and little hummocks of tilled fields hung along mountain sides so steep that the gentlemen of our party told ludicrous stories of how certain mountaineers had been killed by falling out of their cornfields.

There were oat-fields, too, just bronzing for the sickle, with great patches of scarlet monarda gleaming from beside black boulders in their midst. Past these, the trail would then wind on into deep solitudes, and the forest seem primeval again.

Here, the upper limit of the lower zone, the chestnut and wild cherry grow more frequent, mingled with cucumber trees and rhododendrons, till gradually the great variety of familiar trees is left behind.

In the second zone of the mountain no Indian corn will grow, and the chestnut is by far the loftiest tree. I never half appreciated its beauty until I saw the Roan's ravines and ridge, waved and crested with its creamy billows of bloom. There were great wild cherry trees, too, on this part of the mountain, but near the second ring both chestnut and

cherry gave place to stunted beeches and birches. Once over the ring, the winds carry only a balsamic odor and we are in the undisputed realm of the balsam fir. One rare fir species, beautiful *Abies Fraseri*, is found only on the high mountains of this region.

Near the beginning of this upper balsam zone we strike the good road leading down from the hotel on the summit, and our ponies trot along sharply, greatly encouraged by it. On, on, up and up, until the clouds begin to dash in our faces and the mountain sides to grow bleaker and barer. We are too eager now to reach the summit to stop any longer for primroses or rare wild lilies, with which the carriage boxes are already stuffed.

At last we are above the clouds, and rolling away they disclose range after range and peak after peak, as successive horizons come into view. The Roan towers midway between the outer ridges of the Alleghanies, while above and below are spurs and cross-ranges and peaks seemingly isolated from any system, so that frowning mountain masses loom up from every side.

The mountains of Virginia form the sky line in one direction, the mountains of Georgia in another; King's mountain range can be seen over the crest of the Blue Ridge on one hand, and the mountains beyond the Cumberland plateau in Kentucky on the other.

To the left of the road, on the side of the mountain, hangs the little sawmill and its yard, on which was sawed all the lumber for building the large hotel on the mountain top. How many balsams were slaughtered to build it we did not like to think, for it is built entirely of balsam timber, and though not beautiful in architecture, is comfortable and roomy. Its flat top and three-story height are concessions to the winter storms which sometimes scourge this summit that has dared to thrust its crest up through the clouds.

The top of the Roan, though moderately level, is not bald and bare, as our pictures will

show. Coarse grasses, miniature forests of *leiophyllum*, and dense thickets of *kalmia*, *rhododendrons* and *azaleas* keep it green with verdure and bright with blossoms. We gathered spicy wild strawberries among the sunny stretches of grass, and were told that they were picked there even in September.

The beautiful reddish-purple *Rhododendron Catabiense* is quite at home on the brow of the Roan—a laurel wreath that nature has flung there. *Azalea calendulacea*, *A. viscosa*, *A. arborea* and *A. nudiflora* are common all through the thickets, with here and there a *Vaseyi*.

In the little cottage on one side of the mountain-top, many famous botanists have lodged, Asa Gray among them. It was built long before the hotel, and is a delightfully picturesque old structure.

The rocks of Roan Mountain are Laurentian, the oldest known to science, so that standing on its summit and on the boundary between Tennessee and North Carolina we face a dozen mountains that were old before the Alps were born. Not one of them has a rival in

height between the Great Divide and the Atlantic.

To the northeast towers Grandfather, the loftiest peak in the whole line of the Blue Ridge. Directly opposite, dimly outlined against the sky, is Clingman's Dome, the culminating point of the Great Smokies, second only to Mitchell's Peak. To the south, nearer by, looms the Black Mountain, so called from the dark fir forests which sweep its crest, and beyond it are the other giants of this cluster, Mt. Mitchell, the supreme point of the Appalachian system among them; it is 6,700 feet high; and of peaks 4,000 feet or more in height, a round hundred are in sight. The Roan itself, which commands this view into seven States, from 100 to 150 miles in every direction,—is 200 feet higher than Mt. Washington. We scrambled through the thick under-growth of flowering and evergreen



A ROAN MOUNTAIN COTTAGE
WHERE A NUMBER OF FAMOUS BOTANISTS
HAVE SOJOURNED

shrubs to several famous vantage points,—among them the Blowing Rock, from the summit of which you look down hundreds of feet into a deep gorge spur of the mountain; here the wind is always so strong that hats and kerchiefs flung out from the rock are instantly brought sailing back high in the air. The hollow, crooning sound below is like the seething of waves in some deep cavern. This rock and Eagle Cliff were rich in botanic specimens. Besides the primroses, azaleas, rhododendrons and lilies aforesaid, we collected mountain heather, blue bells or campanulas of several sorts, lichens of many kinds, odd ferns not seen before and not yet analyzed, and orchids of several species. Earlier in the summer we should have found hosts of others.

In pockets of soil we were surprised to find there on the Roan clumps of rosy-flowered *Allium cernuum*. How can the little plant grow up there where the winter cold is that of Canada,

and its rocky flower-pots are frozen hard for months together! "How can you stand here above the clouds, with all these grand mountains piled about you, and pick up pebbles and flowers?" quoth one of our party; yet I observed this same gentleman cut himself a souvenir walking-stick from a young balsam grove ere we started downward.

The tiny balsams are exceedingly pretty and regular in growth when but a few feet high, and look much like small araucarias. Their seeds blow about everywhere, and, so great is the moisture from the clouds, sprout and grow in the most unexpected places. In an old, broken-off beech top, ten feet above the ground, we saw growing a fine young balsam fir, three or four feet high, its roots apparently feeding upon the decayed soil of the trunk.

Fires and thick clothing were a necessity on the Roan, even in July, and we did not throw off our wraps next day until far down its side.

L. GREENLEE.



THE MOUNTAIN HAS A BALD PATE, WITH A FRINGE OF STUNTED SHRUBS AND BALSAMS FRINGING ITS EDGES

SUMMER RAIN.

Oh, summer rain, free summer rain!
What blessings follow in its train!
O'erhead and underneath our feet,
All living things are beautified;
The stifling air grows cool and sweet,
And vision, reaching far and wide,
Greets miracles on every side,
Wrought by the summer rain.

Oh, summer rain, rich summer rain!
When fruitful months go by again,
And yellowed sheaf and ripened ear
Are garnered in the plethoric bin,
And winter comes all lean and sere;
For all the treasures gathered in,
For all our toil has helped to win,
We bless the summer rain.

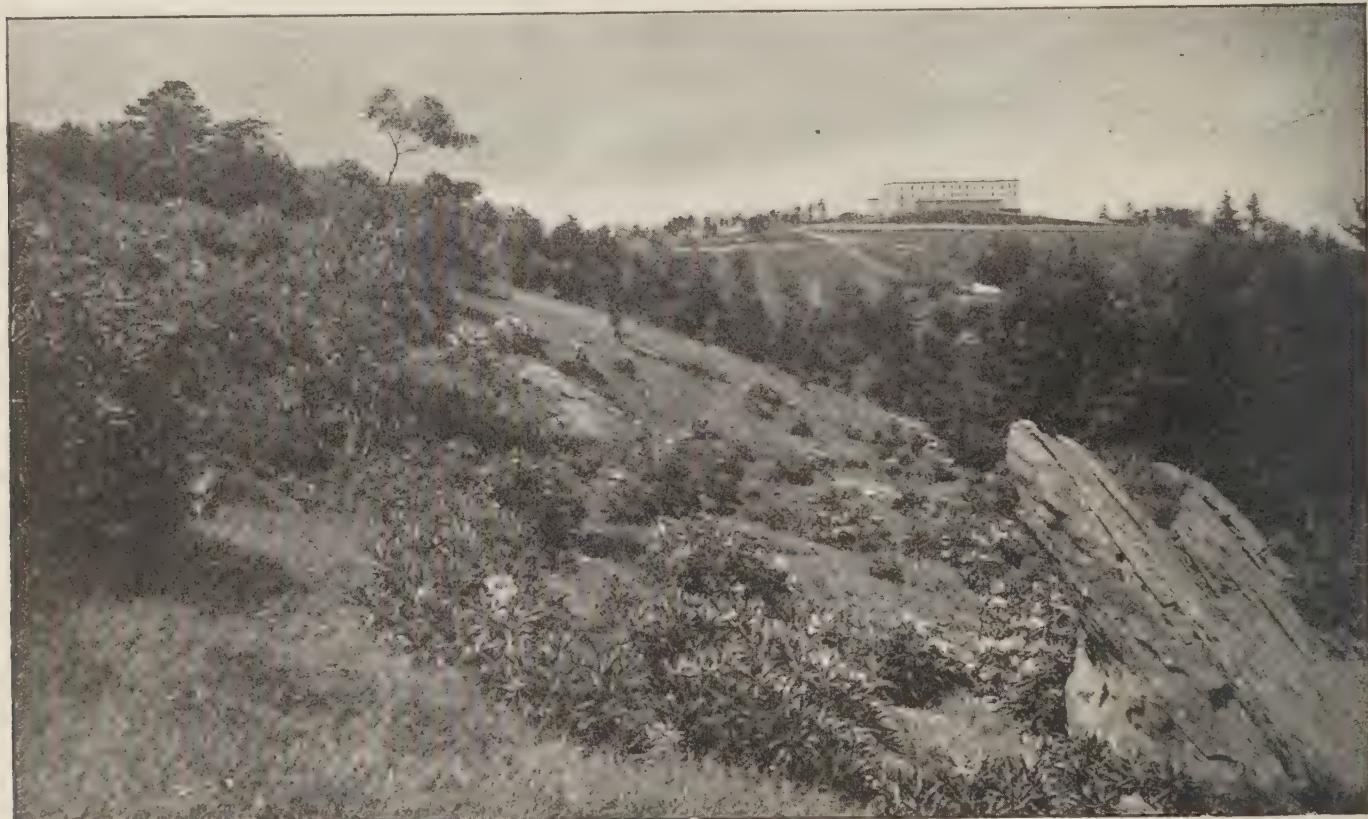
—Burdick.

RECTIFYING IN JUNE THE MISTAKES OF MAY.

THERE is no use in lamenting if plants have been set out too early and been caught by May frosts. Our best plan now is to make the most of early June in making the summer blooming a success in spite of the mistakes of springtime.

When bedding-plants from window garden and conservatory fail to fill and beautify the "show beds" on the lawn, we must depend mainly for this year on the annuals. The seedlings that were started early must receive careful transplanting; but it should also be remembered that there are still great possi-

by any means, in the average city yard; better be on the safe side and lay some brush on the beds for either cats or chickens, until the seedlings are old enough to give the soil a good covering. Newspapers may be placed over these sticks or brush to shelter the newly planted seed from the hot mid-day sun, and the tender seedlings which were started early should also have the same shelter when transplanted now. The newspapers may be removed at night to give the young plants the benefit of the dew, and they should have their daily spraying at night, and may enjoy the



CLOUDLAND HOTEL, BUILT ENTIRELY OF BALSAM TIMBER
CLUMPS OF RHODODENDRON CATAWBIENSE IN THE FOREGROUND

bilities in the way of summer blooming from the seeds of quick growing annuals planted during the latter part of May and early June. When delicate seeds are planted at this season, do not let the sun shine directly upon them at first—it is much more powerful than during the weeks of early planting—but shade the soil of the seed-bed with cloth or paper, spraying carefully every day until the seeds have germinated, and giving them, so far as possible, an even temperature.

In city yards there are the cats to guard against, and only those who have had experience can realize the damage done to a freshly planted seed-bed if a cat fight of only a few minutes' duration, takes place in its midst. And these same cat fights are not uncommon,

early morning sunshine, being sheltered only from the scorching mid-day sun.

A single season's experience will teach the city flower grower the possibilities of vines and high flower boxes with luxuriant trailers for hiding the stiff board fences, and transforming the brick surfaces of back kitchen walls. Dilapidated line fences, which the neighbor refuses to remove or repair, can be quickly hidden by vines trained over a wire screen.

Novel arrangements in vine training need not necessarily have as a background some unsightly object to be covered; inventive abilities soon discover many ways to train vines so as to produce beautiful effects.

Pennsylvania.

P. W. HUMPHREYS.

CACTUS LETTERS—No. 1.

IN the vegetable world no plants are of more unique growth or possess greater fascination for the cultivator than those of the cactus family; and the plants of no other order have so wide a range in form and size, varying from the Giant *Cereus*, which towers a gaunt and weird column ninety feet in height and two feet in diameter, to the pretty little *Mamillaria micromeris*, three-fourths of an inch in height and half an inch through. The flowers of many of the species are the most gorgeous,

become infected with this malady, please remember "I told you so." I speak from experience. To those who desire wonderful flowers with the least physical exertion, I would recommend the cultivation of cactus plants. The plants of many of the species are found in exposed situations, in regions where not a drop of rain falls for the greater portion of the year, and this fact tells us that in cultivation they require very little care. From various points of view no class of plants is



One-eighth part of the collection of
Mrs. Ida Belmer Camp

GROUP OF CACTUS PLANTS

others the most delicate and beautiful of all plants. There is no end to the wonders exhibited by the members of this remarkable order. The cactus family is composed of a number of distinct divisions.

Before discussing this subject particularly, I wish to give a warning. In the cultivation of cacti one is almost sure to contract "cactus fever," a disease which no physician can even alleviate in the slightest degree; nothing can relieve or satiate this burning fever, except more cactus plants. So, if from anything I may write, you should be persuaded to commence the cultivation of these most wonderful productions of nature, and should thereby

more interesting, and the most desirable kinds are rapidly coming to the front to take their places in the twentieth century with the most popular plants in cultivation.

In considering the different species of the cactus, they will be referred to the following distinct genera, viz., *Melocactus*, *Mamillaria*, *Pelecyphora*, *Anhalonium*, *Echinocactus*, *Phyllocactus*, *Epiphyllum*, *Echinopsis*, *Rhipsalis*, *Opuntia*, and *Pereskia*. I shall not, however, take up the subjects in the order here stated.

In the genus *Cereus* there are nearly two hundred distinct species in cultivation; they are natives of the temperate regions of North and South America, and all are of columnar

or creeping growth. For size the *Cereus giganteus* surpasses all others, as it does, also, in the production of articles of commercial value. *C. grandiflorus*, known under the common name of Night-blooming *Cereus* is conceded by lovers of flowers, whether expert or amateur, to be the most beautiful of all flowers; it measures from twelve to fourteen inches in diameter; the outside petals vary from white to reddish brown; the inner ones are of a most beautiful waxy white; the stamens, which are most wonderful in arrangement, are more than a thousand. The pistil extends beyond the stamens some distance and terminates in a handsome many-pointed star. The flower seems not of earth as we watch it unfold its beauty in the darkness of night. Nearly all specimens of *Cereus* are night-

blooming, but *C. grandiflorus* surpasses all others. Nearly all the species of this genus are popular, and nearly all are fine bloomers, and many are profuse. *C. flagelliformis*, *C. speciosus* or *coccineus*, *C. triangularis*, *C. nyc-ticalus* and *C. Baumonii* or *colubrinus* are all great favorites with philocactists.

The culture of the plants is extremely simple. Always use charcoal as drainage, filling the pot one-third full; use as small pots as possible; use rich loam for soil, with a handful of clean sand for the roots to rest in; during the growing season water as you would geraniums; after they have become established they love the sun, but will endure the shade. Try at least one in your collection of window plants, but beware of the "fever."

Michigan.

IDA BELMER CAMP.

HYBRID TEA ROSES.

I HAVE in my garden 180 varieties of the rose; of these the most valued are the Hybrid Teas. This is a comparatively new race of roses, but is steadily extending, and already eclipses the Hybrid Perpetuals in popularity chiefly by reason of their greater reliability and free-flowering capabilities.

They are much cultivated by the greatest British and French rosarians, many of whom have given us new and very beautiful varieties. Among the most eminent raisers perhaps the most distinguished have been Pernet-Ducher and Guillot, of Lyons, M. Nabonnand, Messrs. Dickson, of Newtownards, and Mr. William Paul, of Waltham Cross. To these rosarians we are indebted for such splendid Hybrid Teas as Mme. Pernet-Ducher, canary-yellow in color, an inestimable variety for garden decoration; Papa Gontier and Fiametta Nabonnand, also very effective and florally effusive; Gustave Régis, nankeen-yellow in complexion, very pretty in bud; Innocence (Pernet-Ducher, 1879), a recent acquisition, with pure white flowers; Marquis Litta, Bardou Job, only semi-double, but of lustrous aspect and richly decorative; La France and Caroline Testout, Souvenir de Mme. Eugène Verdier, Marquis of Salisbury, and that grandly growing and flowering variety Gloire Lyonnaise. These are among the finest of French introductions, while Kaiserin Augusta Victoria was introduced by Lambert and Reiler in 1891.

Among those of British origin, some of the most notable are the varieties raised by the

late Mr. Bennett, such as Viscountess Folkestone, in fragrance and floriferousness a rival of La France; Clara Watson, a rose of great attractiveness, introduced by Mr. Prince, of Oxford, after its raiser's death, the grandest in my garden of all Hybrid Teas; the somewhat uniquely colored Grace Darling and Lady Mary Fitzwilliam, the latter of which has been surpassed by White Lady, its extremely handsome derivative, raised at Waltham Cross. Mr. Paul's Aurora I possess and admire, but his Tennyson, which I must ere long acquire, I have not yet seen. From the Messrs. Dickson, Newtownards, Ireland, we have received several varieties of the highest merit and distinction; conspicuous among these is Mrs. W. J. Grant, introduced by them in 1895, with large, freely-expanding, brightly colored and richly fragrant flowers, known in America as Belle Siebrecht, its original name in this country rightly remaining what it was. Their Marjorie, though of very dwarf habit and not in my experience very reliable, is one of the sweetest of all roses,—a veritable gem; while Bessie Brown, of very recent introduction, and its beautiful predecessor, entitled Killarney, are universally regarded as great acquisitions.

The importance of such roses for garden culture can hardly be over-estimated, combining as they do the vigorous constitution of the Hybrid Perpetuals with the delicate refinement and fragrance of the Teas. In them strength and sweetness are harmoniously blended to form the faultless rose.—D. R. Williamson, in *The Garden*.

SOME JUNE FLOWERS FROM WYOMING.

ON the 5th of last June my study table was adorned with a number of vases of flowers which I had collected while rambling over the hills near Douglas, Wyo. Thinking that the readers of this MAGAZINE might enjoy a glimpse of them, the camera was brought out and these beauties of the desert "had their pictures taken."

Fig. 1 is an engraving of the flowering stems of the *Delphinium Geyeri* (Greene). This is a noble plant, often more than three and a half feet high, with a flower spike or raceme sixteen to twenty-four inches inches in length, loosely or densely covered with large flowers of an intense blue. The picture conveys but an imperfect idea of this fine plant. This larkspur is locally known as "poison weed." It appears early in spring as a bunch of juicy green leaves which are greedily eaten by cattle, often with fatal results. The plant grows in rich, sandy soil, from 5,000 feet to 9,000 feet altitude.



FIG. 1—DELPHINIUM GEYERI



FIG. 2—ERIGERON CANUS

Fig. 2 is a single plant of *Erigeron canus* (Gray). It has about sixty flower heads, being an unusually fine specimen. The heads are golden yellow, with pure white rays, and are about three-fourths of an inch across. The plant is about six inches high, and locally it is called a "daisy"; it is quite showy.

Fig. 3 presents a beautiful trio. The large, white, lily-like flowers are those of the *Calochortus Nuttallii*. The petals are pure white, with purple, or crimson and yellow spots near the base. The plants grow from twelve to thirty inches high, with one to four narrow leaves, and a single stem bearing one to five flowers. The flowers are two or three inches across, occasionally nearly four, and are very beautiful. Sometimes they are called "Butterfly Lilies." They are excellent pot plants for forcing in late winter.

Beneath the calochortus and on the right side may be seen four flower heads of the *Eriogonum ovalifolium*: they look like diminutive snowballs. This beautiful little plant is found on rocky hillsides. It is cespitose, with a tuft or rosette of oval leaves, covered with a silvery white wool. The stems are about four inches long, naked, not branched, and bearing a round head of densely clustered, creamy white flowers, which are delicately fragrant. These heads are about one inch in diameter.

At the left hand side is a plant of *Lathyrus ornatus*, or showy sweet pea. These are about ten inches high and each plant usually



FIG. 3—*CALOCHORTUS NUTTALLII*
ERIOGONUM OVALIFOLIUM
LATHYRUS ORNATUS

bears several clusters having from three to twelve flowers which are nearly the same size as the common sweet pea of our gardens. The color is a crimson or purple, sometimes shading to a deep rose. Two varieties are common, one of which has wings and keel of a pink or rosy crimson, while the other has them of a pure white. Both varieties are shown in the engraving. The fragrance is much like that of the common sweet pea, only more powerful. They are delightful plants, grow from a perennial root or from seed, and are easily raised in the garden. I cannot see that cultivation improves them any. A sandy soil suits them. The plants are not found here at an altitude above 6,000 feet.

Fig. 4 is quite different from the ordinary bouquet in that it was plucked for its seed-pods and not its flowers. It is composed of four or five plants of *Astragalus pictus* (Gray). This plant, when in bloom, is a very insignificant affair; its short, simple stem, rarely exceeding three inches in height, bears a few pale green, filiform leaves, and five or six very small, pea-shaped blossoms, of a dusty white some of which appear in the picture but are very inconspicuous. But the seed-pods make up what is lacking in the flowers. These are membranous and become inflated to a large size. Indeed, the entire plant might easily be packed inside one of these pods. They are

smooth, pale green, often suffused with a yellow tint, and mottled and reticulated with a rich brownish purple. They are quite pretty and in comparison with the plant which bears them are very striking indeed. The pods are about one inch or a little more, in length and nearly as much in diameter.

Wyoming.

S. L.

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AZALEAS AFTER BLOOMING

These should be shifted into larger pots. Rotted sods and leaf soil in equal parts, with a little sand added make a good compost to use, yet if the leaf mould is not obtainable one-eighth part of well rotted manure may be used with the soil. The potting should be done as firmly as possible, using a flat stick to pack the soil well down all around the ball.

The best location for azaleas throughout the summer months is outdoors, plunged in the ground up to the rim of the pot. Place them where they will receive all the water and syringing they need, which, through the warm weather will be twice a day at the least.—*Florists' Exchange.*



FIG. 4—*ASTRAGALUS PICTUS*



GLEANINGS FROM MANY FIELDS.

*They whom truth and wisdom lead
Can gather honey from a weed.*

—Cowper.

HOW TO MAKE AN UNPRODUCTIVE TREE BEAR.

There are many fruit trees that seem to wear out the patience of their owners by failing to bear. They are apparently old enough, big enough, and have had everything in the way of cultivation and manuring done for them that seemed reasonable, and yet they will not bear.

It may be that excessive kind treatment has been the very cause of the refusal to bear. They have grown too much and are yet in the wood-making business rather than in fruit-bearing. It may be that the variety is not an early bearing one, and the proper time to bear has not come. The climate may be one which does not favor early bearing.

If either of the two latter is the cause, a little more time may put things to rights. However the bearing of such trees may sometimes be hastened by the same means that will be recommended for excessive wood growth. This is, to check. There are several ways to do this. Some advise cutting back some of the roots, but I do not like this plan because it permanently cripples the tree. I have known iron spikes to be driven in the body, and sometimes the bark is pounded, which makes ugly scars. Neither of these methods seems advisable.

The plan which I have followed with success and without permanent injury is girdling in early summer time. This should be done in June. A single cut may be made with a knife through the bark, entirely around the trunk at any convenient place; or, two or more such cuts may be made. If a ring of bark several inches wide is peeled off entirely around the trunk of an apple or pear tree at this time of year, no harm will follow, for a new bark will soon form over the wound. Another very good plan is to remove long strips of bark about two inches wide, pointed at both ends, and leaving spaces of bark of about the same width.

Any of these will cause a checking of the

flow of sap and an unusual formation of fruit buds instead of an excess of wood buds. The trees of the stone fruits are much more sensitive to injury and will not safely endure such treatment as has been described; nor do they usually need anything to force them into bearing.

H. E. VANDEMAN.

QUEEN OF THE PRAIRIE ROSE.

This old-fashioned rose is not as often seen as formerly, or quite as frequently as it deserves to be. The flowers are borne in clusters and open one at a time, the first ones remaining on the stem until four or five blossoms are all out at once. The natural color is a deep pink, but older blossoms become paler, thus showing gradations of three or four shades in every cluster.

For several years a very pretty effect has been noticed on a brick house where a Queen of the Prairie has been planted with Ampelopsis Veitchii. The glossy leaves of the ampelopsis form a beautiful background for the bright blossoms of the rose.

The flowers of the Queen of the Prairie lack the crowning virtue in roses, that is, fragrance, but for fine effect in a proper situation it cannot be excelled.

F. B.

MURRAYA EXOTICA.

Your correspondent, A. G. A., Portland, Ore., whose inquiry was published on page 219, April number, has one of the most fragrant shrubs in existence, in the above plant. It is rarely seen in perfection. It should have a higher temperature than the daphne, to flower it well,—say from 50° to 60° Fah. during night in winter, and dry enough to keep it dormant. About April let it have palm-house treatment, with syringing and more water when it begins to grow. If your correspondent can compass such treatment, and flower it to hide the foliage, its beauty and fragrance will abide with him always.

The plant is often seen, but always in a

starved and neglected condition. *M. paniculata* was often substituted for it years ago,—a species of larger growth and more difficult to ripen up to a flowering condition as a pot plant.

Daphne odora has been known to stand winters at Washington, D. C.,—of course with shelter. It should be planted out in such a bed of earth as your correspondent describes, formed on the floor of the greenhouse. It is but rarely a satisfactory pot plant, but as a bush or trained on a wall, with its roots free and equable in a bed or border, it becomes a revelation, and one of the most free growing, free flowering, sweet scented greenhouse shrubs imaginable.

JAMES MACPHERSON.

New Jersey.

HARDINESS OF CERTAIN PLANTS.

The new Japanese *Hemerocallis aurantiaca major* is, I think, of rather doubtful hardiness with me. There is certainly a great difference between it and the old "corn lily," *H. fulva*. The root and foliage of the two are so nearly alike that I had all the faith in the world that the new species would succeed, but it does not. I set one in the spring of '98. It grew well through the summer, but the next spring its crown was frozen and rotten. Last fall I set another in a drier place but the same thing has happened again. Now this may be due to low mercury or my soil may not suit it. Have any of you in the north succeeded with it? If so let us hear. I gave a mulch of fine manure both times.

The perennial *Calliopsis*, *C. lanceolata*, is another failure almost. One plant flowered for me some years ago, but as a rule it never survives the winter. As it is wild in Michigan, it is not the cold it is afraid of, so it must be the soil. Last fall I had some great plants set where the ground has been raised by filling in broken stone and then covering the stone with earth. So they were free from standing water, but they are all dead, just the same. Very likely they want sandy ground.

Last spring I set the Mongolian honeysuckle, *Hedysarum multijugum*, and this has lived; though I have not seen its flowers, its foliage is beautiful. *Multijugum* means many leaves and there are many, or rather there are many leaflets, small and light green in color, a great many pairs on a stem or

rachis a foot long. So far this shrub seems an acquisition.

The spiraea *Antony Waterer* has come through all right, and is now pushing out a multitude of red buds. It had no protection more than a sheltered location.

The Japanese maple is also hardy with me. I raised it from seed, which is very easily done, and if you should start fifty seedlings I suppose you would have fifty different kinds of leaves. So far it is a slow grower; it would take a good while to grow a sugar bush I think, but its shoots are of the brightest red and it is just starting buds like coals of fire.

The hybrid sweet briar, *Lucy Ashton*, is a true iron clad, leafing out this spring to the ends of the canes. Some native sweet briars which I raised from seed last year, have lost much more wood than the *Lucy Ashton*, which has had no protection unless a mulch of manure around its root is one.

Some time ago I wrote of a hyacinth chopped out with a hoe which sent up a number of stems supposedly because of the injury, but it is still spreading having thirty-two distinct crowns and twenty spikes of bloom this year. It will cover the whole country in time perhaps. I never knew that hyacinths spread in this way.

Allegany Co., N. Y. E. S. GILBERT.

QUEEN OF EDGELY ROSE.

This new variety is rapidly acquiring laurels. It was shown at the exhibition of the Massachusetts Horticultural Society, May 5th, and was awarded a silver medal.

At the spring flower show of the Horticultural section of the American Institute held in New York, May 9th, it was certificated in the first class, and was recommended by the judges to receive the silver medal of the American Institute.

CURRENT AND GOOSEBERRY WORMS.

Instead of white hellebore to destroy these insects, some fruit-growers are successfully using a mixture of dry air-slaked lime and sulphur. The only direction given is to take air-slaked lime, as fine as dust, and mix a little sulphur with it. Apply the powder with a dry-air gun, or put it in a coarse burlap bag and shake it over the bushes, covering the foliage well with the dust. It not only kills the worms, but is beneficial as a remedy for mildew.

GRAPE LEAF HOPPER.

This little insect is the one most difficult to contend against in the vineyard, and that does a great amount of injury to the foliage. The insect is very generally, though erroneously called thrips. It increases rapidly and exists in large numbers, and sucks the juices from the leaf, mostly from the tender surface, where it is difficult to reach them by means of spraying; but they, also, quickly fly away when disturbed and therefore evade any application of a liquid. In the Bulletin, No. 170, lately sent out from the New York Experiment Station, at Geneva, N. Y., the following method of treatment is advised:

A practical method of combating this insect is found in what is popularly known as the Shield method. The shield consists of a frame with a cloth stretched over it and saturated with kerosene oil, with tar softened until it is very sticky, or with some other sticky substance. When ready for use it is carried in a horizontal position between the rows. The vines are agitated at the same time and as the insects fly or jump into the air, many of them will come in contact with the sticky surface, where they will soon die, or are wet with kerosene which is fatal to them. This method should be used during the warm part of the day, and should be continued every day until the insects are materially lessened in numbers,

* * *

THE MOVEMENT NATUREWARD.

The city is emphasizing the country. So intense is the city life and so artificial the conditions, that people are more and more desiring the solace and peace of nature. The huddling into cities is producing a strong reactionary effect. With the first warm days of spring, the desire to go countryward becomes intense and the denizens of the cities are impatient for the summer vacation. Less and less are the fashionable seaside resorts attracting the people, and more and more are the country and the mountains drawing them.

Not only are the city people desiring nature more, but country people are learning to appreciate it better. Everything which makes for education opens the eyes to the interest and the beauty of nature. Books, bulletins, journals, lectures,—all these are revolutionizing country taste, even though the countryman does not know it. The other day I found a farm laborer admiring the wild bushes along a roadside and desiring to preserve them; and he was also digging wild cornels and setting them about his house. The names and kinds he did not know, but somehow he liked them, and yet, ten years ago he thought they were only brush and weeds. Through some source which he himself does not know, he became

inoculated with the love of things as they grow. His life will be the richer.

Too much and too intensely have we taught science in the schools as mere science. The reaction has now come to teach things for the love of the things more than for the extension of knowledge of science. It is better that a child know a brook, and what it does and what lives therein, than to know the structure and the Latin names of its denizens. This new spirit to know nature intimately in its moods and tenses, and to come into sympathy with all parts of it rather than to touch it at one point, is the new-time motive known as nature-study. Of course there are as many kinds of nature-study as there are teachers. Much of the teaching of mere popular and elementary science is known by this name, but the name should really be applied to that type of teaching which takes the child directly to the common things which it sees, and endeavors to explain them, and to bring it into sympathy with them. L. H. BAILEY.

Cornell University.

* * *

THE PEACH BORER.

The borer is the worst enemy of the young peach tree, and must be kept out at whatever cost. A good wash may be made by dissolving in five gallons of hot water one pint of carbolic acid, one pint of soft soap (or its equivalent in alkali), one pint of salt, and half a pint of sulphur. Before the middle of May pour around the base of each tree, beginning about a foot above the ground, one pint of the mixture when warm. I have used this wash for three years with good results. * * * The borer must be kept out the first five or six years or it will ruin the trees. After that it will not do much harm.—*From a paper by S. S. Voorhis, before the New Jersey Horticultural Society.*

* * *

A GENTLE HINT.

“When I get to be a man,” said the boy who has a good memory for phrases, “I’m going to strive to cultivate an unselfish nature.”

“That’s right,” replied the father. “How are you going to go about it?”

“Well, in the first place, if I have any little boys I’ll let them shoot their own fire-works instead of telling them they must let me do it for fear they will hurt themselves.”—*Ex.*

IMPROVED SHORT-LEAVED PARSNIP.

A writer in *Revue Horticole* indicates the merits of a new variety of parsnip sent out



IMPROVED SHORT-LEAVED
AND
SHORT-ROOTED PARSNIP

short-leaved radishes and the small-leaved Swede turnips; and, like these vegetables, its change of form is connected with improved quality for the table.

Seeds of this variety sown at the same time with those of the Early Round parsnip gave an earlier crop and a larger yield.

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EARLY FLOWERS.

April 14th.—It is spring by the calendar, but the landscape shows no sign of it. The pussy-willow buds are out of their sheaths but there are any number of patches of old snow, and yonder north-lying hillside, covered with forest, is as white as a foot or so of snow can make it. No grass or any sort of herbage in the fields has grown any that I can see,—indeed the frozen sod still holds up horses, but the snowdrops are in bloom, and have been since March 25th; true they have the shelter of the house, but the sun leaves them soon after noon. I can hardly see why they do not flower in January while they are about it. There have been only three or four nights without freezing since they came into flower, and often the ground in the morning is like cast iron. But it is all one to these strange plants,—in fact, I presume frosty nights and the frequent snow flurries keep them perfect longer than would more spring-like weather. The few bulbs planted three or four years ago have increased to a thick mat, and, from a distance, the mass of bloom looks like another patch of old snow; but close by, you see the

bright foliage and the drooping bells. The snowdrop is not a lilaceous plant, but an amaryllid, a native of England. The Crimean snowdrop, *Galanthus plicatus*, is said to be larger and handsomer (*sic*) than the English sort, and there are double varieties "greatly cultivated," they say, but I never saw them and do not think them common, hereabouts, at least; even the single sorts are rare, so far as I have seen. Everyone in this dreadful latitude should grow the snowdrop; it has both beauty and fragrance.

Some years ago, having part of a load of building sand, I put it on a bed in the yard to a depth of two or three inches, and I notice now that tulips do much better there than on other beds close by which had no sand, my soil being a stony clay. As the snow left this bed I saw the tulips were two inches high, but just when they grew I do not know. And now that the beds have been bare for a few days the broad-shouldered growth of the hyacinths set last fall, the narcissi of various kinds, scillas, crocuses, "wild" hyacinth, chionodoxas, and grape hyacinths, are all coming, though there is an old drift covering part of the yard and the snow under the hemlocks is two feet deep. Thus do all these hardy bulbous species bring interest and pleasure at this date, when but for them the yard would be bare and barren as far as new growth goes.

Last year I set the white lily, *L. candidum*, a plant which has seemed so far not to do very well with me. So when its stem, a foot or so high, died last summer in the drouth, I thought it quite in keeping with its general character. But along in the fall a strong, broad-leaved shoot came up, and this proved to be evergreen and is so today. Never having known anything about this, I was as much astonished as though a ricinus had concluded to be an evergreen. I have now some hope of success with it and if its evergreen habit continues it will be all the better.

Allegany Co., N. Y.

E. S. GILBERT.

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THE IXIA.

The ixia, says the *Florists' Exchange*, is the fashionable London boutonnière just now. It is a South African flower, indigenous to the veldt, where it blossoms by the wholesale. It is said that English greenhouse men have imported ixias by the thousands. At the last London drawing-room most of the debutantes' bouquets were of ixias.

BUNCH GRASS.

Lying east of the Cascades, in the high plateau region, 3000 feet above sea level, broken by the misty Blue mountains, which average from 5000 to 7000 feet, is the "Bunch Grass Region" that is at present attracting the attention of many of the inhabitants of the Mississippi valley, who are flocking in by car-loads to claim homes in this region so little known, yet so well worthy of more attention.

Bunch grass, with which the hills are naturally clothed, grows, as its name indicates, in clumps or "bunches," from four to twelve inches tall. It is a fine, sweet, ever-growing grass, always nutritious and acceptable to stock, whether while green in spring and summer or when golden brown in fall and winter, when horses will paw the snow to find it. Separate with your hand a thick tuft of this grass, and you will find in the center the tender, sweet-smelling green grass, as fresh as in early spring. All kinds of hay will be quickly abandoned by stock, to feed on this delicious grass, and it seems to impart a hardihood and vigor given by no other grass. I have never seen a blossom or seed on this grass in the nine years I have been here, and when it is plowed under it is destroyed, never springing up again. Naturally it is a model country for horses, cattle, and sheep, supporting them in abundance, except while the snow is too deep in winter. This, however, rarely happens, and when it does, and the snow stays on for several weeks,—as happened last winter, 1899,—many animals perish of starvation. This is a very rare thing, however, the snow seldom lasting more than three days at one time, before a "Chinook," or warm south wind takes it all off, and the grass is found growing greener and fresher under it.

Oregon.

EMMA B. FRENCH.

ROSE REMINISCENCES.

Under the title of "Reminiscences of an Old Florist," D., *Deal*, writes in a late number of the *Journal of Horticulture*. He tells of visits to France, and of going to see M. Souchet, of Fontainebleau, famous for his improvement of the gladiolus, and with whom was formed "a long and lasting friendship, which ended only with the death of my revered friend."

However, roses were after all the chief object of my visit, and every year I was able to bring back some defi-

nite information concerning those that were likely to be brought forward. There are one or two noticeable incidents in connection with these visits. Intelligence had been brought to us that Lacharme, to whom we are indebted for some of our best roses, had raised a yellow Hybrid Perpetual. Now, as this was one of the great desiderata of the rose world, on mentioning it to a London nurseryman he authorized me to offer a good round sum for it. Alas! however, when I got to Lyons I found it was all a myth. It was true he had found in one of his seedlings a slight tinge of yellow at the base, but this vanished as the flower opened, and it was simply a white rose. On leaving Lacharme's nursery I went to Guillot's (young Guillot, as we used to call him then, though he too has passed away, and the Guillot of the present day is his son). On going over his garden we came to one rose tree, and he said, "I think this is the beginning of a new race, and I expect great things from it." It was indeed a great beauty, very sweet, and really one of those roses which, like good wine, needs no bush. I was so struck by it that I ventured to offer him the sum which I had been authorized to offer for the yellow rose, thinking it would have tempted any French nurseryman. Guillot, however, wished to have the honor of sending out this new rose himself, and probably there has been no more popular rose than La France (for it was that rose), which he sent out as a Hybrid Perpetual, but which after some years was placed in the class of Hybrid Teas.

Another incident was my first introduction to Maréchal Niel. M. Eugène Verdier brought to me one morning at my hotel in Paris a box of rose blooms. They were of various shades of red and crimson, but, though pretty, did not seem to me anything remarkable. Glancing at the box I remarked, "But what is that?" "Oh, that is a yellow rose," he replied, "which came from the south." "Then," I said, "that is worth all the rest of the roses you have brought together." I advised him to keep it over for another year, bring over a box of blooms at one of our exhibitions or to the R. H. S., and added "I venture to say you will reap a golden harvest." There were, however, some trade complications which prevented this. I was not wrong in the estimate I formed of Maréchal Niel, and although I think it must be mainly considered as a rose for the house, yet it is perfectly hardy and unquestionably one of the most popular roses we have.

CANNA, MRS. KATE GRAY.

One of the most recent candidates for admiration among cannas is Mrs. Kate Gray. This variety is the result of a cross between Italia and Madame Crozy, made by Capt. F. Edward Gray, Alhambra, Cal. The plant has been propagated and is now being sent out by Howard & Smith, Los Angeles, Cal.

Mr. Henry W. Kruckeberg, of Southern California, writing to the *Florists' Exchange*, thus describes it:

Imagine a canna plant about seven and one-half feet high in the clear, with foliage of bright, glossy green, equalling in many respects that of a musa, with enormous spikes of bloom of a rich shade of orange-scarlet overlaid with gold; flowers perfect in form, the petals being broad and overlapping, measuring two and a half to three inches across, while the flower itself is from six to seven inches in diameter; the texture is all that could be desired, partaking strongly of the Crozy or parent race. The plant is hardy and will withstand our hot summer days admirably.

We are giving it a trial this summer, and later hope to be able to report its merits as they appear to us.

THE CULTIVATION OF ROSES IN OUR GARDENS.

In Great Britain and Germany many rose societies have done and are still doing great work for the advancement of rose culture. Not a garden but has its collection of roses. In this country it is not so, and while we can boast of the finest and most gorgeous roses grown under glass, we are far behind in the cultivation of roses in our gardens.

This important feature of out-door rose growing is yet to be accomplished, and it is the mission of this society to bring it about. You need not be wealthy; you need no acre or large garden in which to cultivate roses. A small country yard will often have better roses in it than a large and well-appointed garden. There are but few real rose gardens in this country. True, there are some few excellent examples in which are hundreds of the most beautiful varieties of roses that have ever been introduced.

There is scarcely a section in this whole great country where it is not possible to grow at least some varieties of the rose in the open ground. We have types and varieties adapted for all sections.

The first essential requisite to cultivate the rose is the love and interest to do so. The next important point is a good piece of ground, and after this good stock and a start with the varieties best suited for the particular climate and position.

We will now prepare the soil in the proposed rose garden. Should it be warm, upland soil, with plenty of natural drainage, both sub and surface, then little work is necessary. The garden, whether large or small, should be arranged or laid out with some system; borders or beds, not over five to six feet wide, with paths on each side, in order that they may be easily worked from both sides; and whatever lengths are practical, will depend upon the size of the garden. The beds or borders should be edged with either stone, terra-cotta, cement coping, or planted with a border of some close growing herbaceous plants, such as Funkia or some varieties of lychnis or dianthus. But what is still better, for edging rose borders and other flower beds in permanent gardens, is the old-fashioned box-wood.

There should be at least eighteen inches depth of good, rich soil in the bed or border, which should be well trenched to the full depth and roughly but well ridged up. No attempt should be made at leveling or making it fine. If possible this trenching may be done in the autumn, just before the frost. If, however, the garden is not prepared until spring, the trenching and ridging up should be done as early as is possible to work the ground. The soil should lie at least two weeks in that condition, when it should be leveled and receive a heavy dressing of well-rotted stable manure.

If the land be of an open and sandy nature, barnyard manure will answer. If the land be extremely light and sandy, then sheep or cow manure is much better; and if, on the other hand, it should be very cold and heavy land, then well-rotted horse manure is the best. This should be spread over the ground in quantity of about a ton or large load to every 200 square feet, and thoroughly spaded or forked in. After this the ground should be well raked and the soil made very level and fine.

DRAINAGE.

The great essential for making rose beds or borders is proper and ample drainage. Should the ground be of a stubborn, stiff clay nature, with perhaps a strata of hard-pan beneath the top soil, then the whole area should be artificially and thoroughly drained and the beds or borders properly formed; and might be done in the following manner: Remove all the top soil to one side, taking out enough of the hard-pan to a depth of at least two feet below the normal surface or level of the land in the garden, and have the bottom surface sloping to the side where the main path or walk is to be. Then put in, carefully laid together, a layer of refuse or old brick, or some such material, to the depth of about eight inches, then filling in the crevices

with small stone or clinkers. Put on top of this a two-inch depth of coarse gravel, clinks or cinders, then roll this with a garden roller, as you would for making a path, or, if such drainage material cannot be easily had, then lay two-inch ordinary drain tile in lines two feet apart and fill in between the tile with the same material as mentioned above—coarse gravel, sand, or ashes, to a depth of eight or ten inches. After this put on a layer of turf sod grassy side downward. Put on top of this good garden loam to the depth of about fifteen inches, using partly the soil that has been removed from the top before draining. Then fork or spade into this the before mentioned quantity and quality of manure and your border is ready for planting.

In such cold bottom or hard-pan ground the path or walk should also be drained, and the drain in it should be at least five or six inches deeper than the drainage under the beds or borders. This method will ensure drainage in even the very coldest or wettest land. Should, upon the other hand, the land be extremely sandy and the top soil not have much body to it, then the best method is to take out eighteen or twenty inches of the soil or sand, and put in a layer of at least two inches thick of heavy clay—regular brick clay is the best. This is to form a crust or bottom for the purpose of holding the moisture and to prevent the manure and fertilizing substance from leaching through into the sand many feet below, then filling in to the normal or mean level of the surface, with the best loam or garden soil, as heavy as can be obtained, and mixing it with the before mentioned quantity of rotted cow or sheep manure, which, in sandy soil, is by far the best.

It will be noticed that in this case the border need not be above the mean level of the walk or path, as in the case of the cold and heavy land, because the surface drainage will be ample, and in dry weather it will not dry out so quickly as if raised above the path or walk.

PLANTING.

In an extensive rose garden, where beds or borders are permanently to be established, the plants should be set from eighteen to twenty inches apart each way, or, in a border or bed five or six feet wide, only three roses should be planted. But where space is limited, closer planting, say twelve to fifteen inches each way, will answer every purpose, as the plants can then be easily tied up.

Planting should be done either in the early spring, as soon as the ground is ready to be worked, or late in the autumn, say the latter part of October or early November.

OWN ROOT STOCK THE BEST.

In order that no disappointment shall be had, plants on their own roots propagated from cuttings are very superior to the cheap imported or budded stock, which, as a rule, last but a season or two, and often do not grow even the first season. The wild stock upon which the roses are budded or grafted gets the better of the real rose, and throwing up as it does, strong, wild suckers or shoots from the roots, thus killing the plant itself. It is this that causes so many disappointments, where frequently the most luxuriant looking bushes are found barren. They never bear a rose because it is simply the wild stock and not the genuine rose.

The plants should be set into the ground an inch or two lower than the crown, or where the mark of the soil indicates the depth they were in the ground before, firmly fastened and a slight depression left around the stem. Then each plant should receive a copious watering. After this the soil can be made level about them.

PRUNING.

Judgment and discretion must be used in pruning roses. If the plants be strong and of the vigorous growing type, such as the Remontant, Briar, and climbing roses, then the young wood of last year's growth should be cut back to two or three eyes. If, however, younger plants are set out, or if they are of the Tea or Hybrid Tea types, which are not so strong, less pruning should be done at first.

Much beneficial pruning and trimming can be done when cutting the flowers and after the plants have made a good

strong growth. Flowers, if not cut while in perfection, should be cut and cleaned after they are through blooming for then the wood is ripe, and, if trimmed out will make another new growth and give a new crop of flowers. It is not good policy to let them seed, as it will rob the plant of a certain amount of strength.

ENEMIES AND INSECTS.

In order to keep away the insects which trouble the rose, of which I am happy to say there are but few, the following methods are excellent preventives:

Before the plants start into growth in the spring it is a capital idea to spread a thorough layer or mulching of fresh tobacco stems over the entire bed, so that the ground can scarcely be seen. This will prevent the aphis, both green and black, from attacking the young growth or foliage which is about to burst forth.

An emulsion composed of flour of sulphur, lime, soap-suds, and a teaspoonful of kerosene oil, to a gallon of water and a quart of strong tobacco juice, extracted from the stems, well mixed and diluted with hot water. After it has cooled stir it well, and syringe the bushes with a fine spray two or three times. This will kill any eggs of the small green rose worm, as well as the eggs of the rose bug; and again when the buds are well set and before the flowers open, several more applications of the emulsion, now made a little weaker, should be used on the plants.

It may seem expensive or useless to some people who desire to grow roses, to go to all this trouble, but thirty-six year's experience in rose growing has taught me that the herein described plan and methods for outdoor rose culture have given the best and most satisfactory results.

For the most popular and standard varieties of the various types of roses I would refer to the list as called for in the schedule of the American Rose Society for the first annual exhibition. There are many other excellent varieties. As to the training of roses into the various forms and shapes, it is hoped to refer to the subject in a later issue.—*Henry A. Siebrecht, in Bulletin of American Rose Society.*

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ESSAY ON VEGETABLE GROWING.

Continued from page 249.

BRUSSELS SPROUTS—Improved Half Dwarf. Sow about the 15th of April in frame or seed bed. Transplant when big enough and set outside in June. Some gardeners sow these at the same time as they sow winter cabbage, but Sprouts require a longer time to mature, and should be sown earlier. This makes a fine dish of vegetables; they are as tender as cauliflower, and as easily grown as cabbage and hardy. In treading the soil firm around the plant it will check the leafy growths and make firm buds. Nip the tops of the plants that are slow in making sprouts. Just before hard frost, break off the roughest leaves and pull out the plants and heel them in close together, in a well ventilated cellar or shed.

CABBAGE—Early Jersey Wakefield, Selected All Seasons, Red Stone Head, and Early Dwarf Savoy. Sow Early Wakefield in February, in hot-bed or greenhouse. Use somewhat poor soil and do not give too much water or else the seedlings will damp off very easily. Plant in April, also sow for succession. Sow for winter between the 20th of May and 1st of June. I used to sow cabbage and also cauliflower in September, and winter them in cold frames. But now, from sowings made in February I get just as good plants with less labor and trouble.

CAULIFLOWER—Snowball, Giltedge, and Erfurt. Sowings to be made the same as advised for cabbages, but bear in mind that they are more tender than the last named. Try a sowing in July and these plants can be pulled and stored in cold frames in the fall; they will head very nicely. To grow cauliflower to perfection rich ground is necessary, with frequent hoeing and plenty of water. Break some leaves over the head to keep them from turning dark.

DANDELION—Improved Thick-leaved. A fine vegetable for salad in the spring. Sow in April in drills, thin out to

six inches apart, keep well cultivated. In March, next spring, put some hemlock boards in reversed V shape, then cover with fresh horse manure, or build a frame and cover with sashes. The plants will come up nice and tender, and white as snow, and will lose their bitterness.

ENDIVE—White Curled, and Broad Leaved. (Scarole.) Sow seeds in April for early or main crop; for fall, in July or August. Tie each head to bleach, or cover with boards. In fall pull out carefully and transplant in cold frames. Give plenty of ventilation, and be careful that the plants do not get wet or they will decay very fast. Bleach as you need it.

KOHL RABI—Early White Vienna. Sow in May and again in July, transplant when big enough. This vegetable must be used when young to be good.

LEEK—Large Rouen. Sow in early spring, thin out to one inch, and when they are about six inches transplant in well manured ground, deep as possible without covering the heart of the plants. Draw soil to the plants as they are growing; they can also be sown in flats in greenhouse or hot-bed in February, and transplanted in garden when weather is favorable.

ONION—White Portugal, Yellow Danvers, Red Wethersfield, and Prizetaker. Sow Prizetaker in flats, in greenhouse in February, and transplant in garden in April in well enriched ground, and keep well cultivated. I have also sown other kinds in flats, and planted out in April, but have come back to the way of sowing outside in April. I get just as good returns and with less trouble.

POTATOES—Early Rose, Beauty of Hebron, Carman No. 3. Plant as early as the ground is ready in spring. If a very early crop is desired sprout the potatoes about five weeks before planting time; for this purpose cut to any size desired, place in greenhouse or light room when the shoots will soon start to grow, and when planted out will grow more rapidly than those planted in the usual way.

SALSIFY—Long White French. Sow in latter part of April, in well dug ground, thin out to three or four inches apart. Keep well cultivated all through the summer; in fall pull out half your crop and store in earth in the cellar for use in winter. Leave the other half in the ground to use in early spring.

L. A. MARTIN.

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SELECT VARIETIES OF STRAW-BERRIES.

Some varieties of fruits of all kinds appear to be easily affected by the location where they are planted; some are adapted to a very limited range, while others can be grown more generally, and a few kinds will do well almost anywhere with good cultivation. This is true of apples, pears, peaches, grapes and other fruits. The strawberry, of all fruits, appears to be the most sensitive to local conditions. Mr. Edwin H. Riehl, of Alton, Ill., who has tested some 400 varieties of strawberries, and has given much attention to the various reports in regard to this fruit, mentions the following four varieties as most likely to please, both for market and home use: Ruby, Clyde, Splendid, and Cobden Queen. He says, in *American Fruit and Vegetable Journal*, "I give these varieties preference, not alone because they have given best results for me, but because they are giving satisfaction over a wide territory."



NATURE STUDIES FOR YOUNG PEOPLE.

*Go forth under the open sky and list to
Nature's teachings.*

—Bryant.

WATCHING THE BIRDS.

“The little bird sits at his door in the sun,
Atilt like a blossom among the leaves,
And lets his illuminated being o’errun
With the deluge of summer it receives;
His mate tells the eggs beneath her wings,
The heart in her dumb breast flutters and sings.
He sings to the wide world, and she to her nest,
In the nice ear of nature which song is the best?”

—Lowell.

WITH June once again we turn to the study of our feathered friends. By this time the migrations are over, the spring song has been sung and our little friends are busy now building their homes and raising their families.

I hope none of the Volunteers take away the eggs. A collection of these fragile things seems so cruel. If they must be obtained for scientific study, why, leave it to those who at least know when and how to rob. Let us feel that one song in the bush is worth a whole collection of eggs in the house.

During May and June, four o’clock is about the right time for the Volunteers to be stirring; surely you can manage to do this twice a week. In June the wild, gay songs we heard in May are more subdued, for now the father and mother birds have something to hide, and the secret of the nest must be carefully guarded. In the garden you will probably find the cat-bird, robin, chipping-bird, and perhaps a vireo’s nest, and every where the different sparrows. You must go near the marshes and river to find the red-winged blackbird’s home, the bunch-like nest of the marsh-wren, with its little entrance on the side.

In the woods we shall seek for thrushes, the veery, and the oven-bird, for they all love the cool and quiet, and the neighborhood of a brook.

This month we show you a humming-bird’s nest, and also a picture of the bird itself taken on the wing. Do not forget to note carefully the nests you see, what kind of trees they are on, about how high from the ground. See if you can discover if both birds take part in the building, if they share the nesting cares, and if they both feed the young. Early in April I began to watch a pair of blue-birds who were refurnishing for themselves a deserted woodpecker’s hole, and I hope to have a complete history of them and their family before the summer is over.

The Volunteers will find much to interest them in the ways the old birds feed the young. If I should say to you “what do the little bird’s eat?” I am quite sure the answer would be a shout “worms!” But this is only true of some birds. The insect-eating birds,

often beat into a pulp the beetles and bugs before feeding them to their young.

The red-eyed vireo will daintily pick a worm from a nest of them, and knock it twice, first on one side and then on the other, before she considers it fit to eat.

The doves, flickers, and humming-birds, swallow the food, soften it in their crops, and then pump it into the ever-open mouths of the young birds. The seed-eaters also feed insects to their young, and all these birds should be carefully protected. Worms, caterpillars,



HUMMING BIRD’S NEST
ON BRANCH OF OAK TREE

grasshoppers, beetles, and bugs are what they select, and their work makes them valuable helpers to the farmer. Have you ever noticed a mother robin teach her little family how to slice off the ripe side of a strawberry? I have, and she did it so neatly that I did not grudge the berries, though the bed was a small one. When the cow-bird's egg has been laid in a song-sparrow's nest, and been hatched, the young cow-bird has an ugly trick of hunching out with its strong back and legs, the

yet the male wood-thrush takes the greatest pains in singing over and over again his delicious song, so that the little birds may learn every note. The blue-bird, the oriole, and the goldfinch have the lovely habit of singing as they fly. Most of the thrushes have an evening as well as a morning song, and those

Volunteers who live near the "northern edge" as that part of the United States which adjoins Canada is called, may hear their exquisite song, for it is to this secluded place



HUMMING BIRD ON THE WING
SIPPING NECTAR FROM THE
FLOWERS OF A FUCHSIA BUSH
*Photographed by F. H. Beach, Jr.,
at La Mesa, California*

little sparrow that belongs there. In this way it gets all the food and care. Last summer a poor little sparrow worked for three days on the lawn trying to keep this disagreeable bird fed. It had left the nest, and from dawn to dark taggered about after the sparrow with its mouth always open, clamoring for more. As the foster-mother would push food into its mouth she fairly had to stand on tip-toe, for the cow-bird was considerably the larger of the two. Nest building is said to be an inherited faculty, and so is song,

they go to rear their young. There was sent to me the other day a chipping-sparrow's nest which was taken from a honeysuckle vine growing over a porch. It was one of last year's nests, and its peculiarity lies in the materials of whlch it is composed.

All chipping-sparrows use hair, you know, and this particular bird had chosen what? Why human hair. The sweepings from the house were deposited in a barrel which was emptied each week; between times she chose what she wished, and here are the long, fine brown

hairs, wound round and round, some white ones from the eldest member of the family, and even the dog was not forgotten, for there are quite a number of his wheaten red hairs wadded in. The nest is unusually soft, and the sparrow used double the amount of hair that is usual.

When studying birds, after you have considered their song and general shape, and written it down, look well to their paces. Yes, I know you think all birds hop, but they don't. The robin hops, but so swiftly that it becomes a run. There are birds among our wild ones that walk like a hen. Who can send me some observations on wild birds that walk?

There are some birds that walk and wag their tails and heads at the same time, and very comical they look. It seems as if they must get very tired doing all three things at once.

The feeding habits of all birds are interesting to watch. Last year I became quite well acquainted with a pair of kingfishers that had made their nest in a cliff from which gravel was carted. They were high up above where the work was being done, but they did not seem to mind the noise in the least. A dead branch hung over the face of the cliff and here they perched and rattled out what they called a song many times daily. Their fishing water was that of a canal basin, and their food was small soft-rayed fishes, minnows generally from two to four inches long. These were swallowed immediately, almost before the bird rose from the water or regained his perch, except those that were carried to the nest. The habits of this bird when fishing in rivers or bodies of waters where larger fish, with stiff bones like perch, are found, are very different. Under these circumstances the fish are carried to the shore and killed before the bird attempts to swallow them. Over and over again in watching birds the fact is brought to our notice that there is marked individuality in different members of the same family. That is, though all robins may look alike, they do not always act alike. There are differences in song, and sometimes the nests vary from one cause or another, not only in shape and material, but in situation, and generally in reference to the food supply.

By the end of the first week in June the migrants have all left, and the birds that remain are those that intend to pass the summer with us. Most of the birds are nesting, and those like the bobolink, that raise

only one brood, will early in July leave us, to disport themselves in the wild rice marshes with others of their kind.

With those birds that raise two or three broods, the nesting season may extend into August, and we cannot wonder that they emerge with drooping plumage and no voice to speak of. August is a very dull month for the bird-student. With few exceptions the birds are depressed and moulting; and we rarely hear a note as they silently move among the heavy foliage which conceals them from us.

To those Volunteers who began the study of birds in April, I wish to give a special word of encouragement, though I hope there are not many who need it. Do not get disheartened if you do not know as many birds as you hoped. Remember to wear clothes and particularly a hat of a subdued color. Keep very still when near your bird, and refrain from making motions with your arms. When you move, do it as softly and quietly as possible. Do not give up one bird till you are sure you know all about it. Have you seen the brick-red patch on the cat-bird, the white on the robin, and the golden lining to the flicker's wings?

* *

HOT SHOT.

Welcome to our Volunteer in far away Japan. We hope that she will form a little company even if only two. We are looking forward to the "something of interest" that will come from her.

* *

Our first company comes from Illinois, and carries the lucky number, thirteen. The captain is Fanny L. Stevens, and the privates are

John R. Maley.	Mary Maley.
Grover C. Hixon.	John Price.
Fred W. Stevens.	Patrick Maley.
Mabel C. Tabler	Glen Major.
Nora Tabler,	Alto Major.
Kittie Price.	Robert Stevens.

The company must have had many pleasant out-of-door excursions by this time. Do not forget to record them, so as to make comparison in years to come.

* *

We have heard from Maude Wright, who lives in Virginia, about a humming-bird's nest. This is what she says:

I am a little Volunteer, and I live in Virginia, twelve miles from Norfolk. In the February number of VICK'S MAGAZINE you asked if any of the Volunteers had ever found a ruby-throated hummingbird's nest. My father found not a ruby-throated but a turquoise-throated humming-bird's nest, summer before last. I saw the first

blue-bird February 15th. The robins which build their nests in New York in the summer, remain here all winter.

We were very much interested in this nest, Maude, and the bird that built it. Will you get your father to tell you all about it, and write it down and send it to me? Don't forget to state where he saw it. I find no record of this bird in the United States.

**

One of our Volunteers writes us from Kansas of her experiments with lilacs. She writes:

How many of the readers know that picking all the leaves off the lilac during August, that the shrub will bloom again before its true season. I have tried it on the purple variety but I think it would work all right with the white also. Try it about the middle of the month of August. My experience met with success.

**

Mrs. C. L. Griffin of South Carolina, asks the Volunteers a question. Can any one help her? She does not give color, size, nor markings of the insect, so it cannot be identified.

I have noticed for several springs and all of the summer months, a long beetle-like bug that would make its home at the roots of tomato plants, calliopsis, sunflowers, and nearly every kind of annual plant that bears a yellow flower. They only stay there long enough to destroy the life of the plant, then move on to another. Can any of the Volunteers give a remedy for this insect? It is almost impossible to raise tomatoes or to have any kind of a yellow annual in the flower garden. Why do they like yellow flowers the best?

**

All the way from Ward, Indian Territory, word comes of a sick and suffering Volunteer. Yet even so she takes comfort in the loveliness of nature, and writes feelingly of "the sweetest hour, that in which man and all nature awakes, the break of day, when all the world is filled with the sweet song of birds."

**

The robin seems a great favorite among our Volunteers. Hiram Holmes, Ira Hitchcock, and Antonia Eggers have all watched and written about them.

**

"A few days ago I noticed a tree at whose bottom a lot of reeds grew in a circle and around which was a spider web so as to make it a good place to shelter some helpless creature. I looked closer and found that the place was very much like a bee-hive, having a large pole in the center. Then I found it was the home of a swarm of flies."

Yours truly,

WALTER GUNDLACH.

It is always interesting to see a new home. Did Walter find out just what kind of flies these were?

On April 21st, I had my very best "field day" so far. Within a few feet of the house is a thicket of trees, many of them larches. Here I saw, all day long, the kinglets, both golden-crowned and ruby-crowned, and I had the unusual joy of hearing the latter sing. He bubbled with song all the day long, like a perfect fountain, and every time he sang he showed his lovely red crown, which stands up when he wishes, or lies quite unnoticed when he is not particularly roused. On a walk to some woods in the afternoon, I found that my old friends the kingfishers had returned, and saw besides red-winged blackbirds, bluebirds, song sparrows, a yellow-bellied sapsucker, and a pair of wax-wings. All these birds were in extra beautiful plumage, so it seemed to me, but perhaps it was only because the sun was shining so bright and the grass so green, and that, at last, summer seemed on the way. After telling what was seen among our feathered friends, it is only fair to give a glimpse of what is doing among the flowers and insects, as may be seen in the account given in the following letter:

"A delightful walk through the woods on Saturday afternoon, found the arbutus in fine flower, also the red trillium, the white trillium, the Claytonia with very narrow leaves, the yellow flowered erythronium, dentaria with much divided leaves, the hepatica or liverwort, fine specimens of equisetum or horsetail, some beautiful crimson red cups of fungus, growing on rotten sticks just under the ground, and the blackish flowered cohosh, coltsfoot, spice bush in bloom and some pussy willows. On raking over the dead leaves I found some very curious little toads about an inch long, also three light brown peepers with a cross over the back of darker brown, so these must be Mr. Pickering's frog. I looked for Paddy greenback frog, but didn't find him; then there was a black shiny lizard with beautiful eyes and some mottlings on the back; he was about three inches long with four funny little legs. Near by him I found a small orange colored lizard with red spots down his back like two rows of buttons; he seemed very sleepy. How I happened to find these chaps, I was looking for live snails under the leaves, of which I got the following specimens: Helix (snail) albolarbris, thyoides, our two largest species, also H. monodon, tridentata, fuliginosa, alternata, nitidus, palliata; by the side of the pond in the woods, a limnaea, a planorbis and also the speckled turtle with black back, and lots of lemon yellow spots; these were much larger than I had ever seen before. I also saw two large snakes; they were sunning themselves on a log, and I gave them the right of way. I think that's all." J. W.

P. S.—I got two fine cocoons also, April 23d.

**

In order that the Volunteers may not be discouraged, I admit that the writer of the above letter is an observant naturalist of many year's standing.

Nannie Moore.

BUD, BLOOM & SEED POD.

*Nearer to the river's trembling edge
There grew broad flag flowers, purple, prankt with white,
And starry river-buds among the sedge,
And floating water lilies, broad and bright.*

—Shelley.

Sweet rose month.
Lilac-time beats all.
Asters are high liver.
Oh, for perpetual June.
The wistaria is long-lived.
Are the bean-poles in place.
Sow lettuce and radishes for succession.
Now comes the neighbor for the lawn-mower.

Plants, like persons, faint in a crowd. See the point?

Cherry-tree slugs will quickly yield to air-slacked lime.

Shortcake.—“It's all right,” said Jamie, “unless it's so short I can't have two pieces.”

Alderman Branch, says a Chicago paper, started a fire with kerosene. The bark was scorched.

For a superior white rose for the cemetery choose Madame Plantier. Very hardy; of compact growth.

The simple white wreath, of whatever flowers, stands first as a tasteful funeral design in the estimate of most good judges.

It cannot often be truly said that a plant succeeds best in rather poor, light, dry soil, but such is the case with the California Sand Verbena, better known by its botanical name, Abronia umbellata.

One grower who has practiced burning over his old strawberry bed after the crop,—the mulch, dead leaves and rubbish being consumed by fire,—avers that somehow the process mellows the soil, causing it to hold moisture better.

You appreciate the asparagus bed, with its rich annual product that costs so little, do you? Then kindly observe two points in the care of the bed, just about now: Don't cut the crop short the end of June; weed out the young seedlings that spring up from last year's scattering.

The ornamental beets, so highly prized a few years ago as bedding plants, do not make very great strides in winning popular affection. It is the sweet, quickly grown garden beet that commands our admiration as dis-

played on the dining table, and the leaves are delicious when served as greens.

The writer is the enemy of no bird. True, the robin helps himself rather too freely to our cherry crop, but, bless him, he also helps himself to worms by the myriad for supplying the gaping bills of his growing brood. So he is welcome. Even the much maligned English sparrow, after long acquaintance, we vote in favor of; he is a welcome inhabitant of at least one home and garden.

GREEN ROSE. Every once in a while some one starts up the talk about this old subject as if it was a novelty. Even some of the garden journals fall into the trap and make remarks about this depauperate old sort, as if it was a fresh botanical curiosity, an unheard-of wonder. It has been in botanical gardens for many years. It has no appreciable value to the cultivator unless he be a charlatan.

JUNE-SOWN ANNUALS.

Have you neglected sowing annuals until this month? Well, that's bad for some hardy kinds like sweet peas, asters, the ornamental grasses and others. But for many of the half-hardy and tender annuals there is no better time than June. It is astonishing how rapidly the young seedlings grow after this date; they develop into strong, bushy plants in almost no time, and often outrun those of earlier sowings that may have received some kind of a check.

ABUTILONS IN SUMMER.

We never see a window abutilon in a pot in summer but we feel like taking its owner by the hand and saying “There's a better way.” These plants should be bedded in ordinary garden soil not too rich; then by a little pinching back they can be made strong, bushy plants, as handsome as you please, and all without the trouble of summer attention, as when they are kept in pots. They will grow and bloom for summer ornamentation much better thus bedded, than if pot grown. As for lifting in the fall, no plant is better suited to this than the abutilon; all that is needed is



The small plant at the right is
only two months old

BEGONIA GLOIRE DE LORRAINE

to lift carefully, pot firmly, and keep in the shade; sprinkling the foliage lightly at intervals to sustain the plants as they are becoming adapted to the new conditions. Later they may go to the plant window or greenhouse, places in which few plants are more rewarding for warmth, light and attention given.

E. A. LONG.

**

BEGONIA GLOIRE DE LORRAINE.

The florists have gone up and down this country and with printed pages of newspapers and books, singing the praises of Begonia

Gloire de Lorraine, until now they tell me that they cannot supply the demand for it. It was one of the daintiest and most taking plants used in decorations last winter, and now every window gardener who can secure a plant is imagining what a fine show it will make in her room next season. So far, I have found it not more difficult to grow than other begonias, and the illustration shows how full and how early the plants bloom.

The little fellow at one side is only two months old. This is the paler form, or white sport from Gloire, and, although not so radiant, is much daintier.

L. GREENLEE.

LETTER BOX.

Let me have audience for a word or two.

—Shakespeare.

Sowing Pansy Seeds.

When can I sow pansy seed in the open ground to have strong plants for winter.
H. M.
Nunda, N. Y.

Seed can be sowed any time this month or next. When the plants have made two or three leaves transplant them, giving two or three inches of room, and in September place them in their permanent bed.

**

Asparagus Sprengerii.

Although there is much in the MAGAZINE about the treatment of Asparagus Sprengerii, I wish further advice. A plant, bought a year ago, has grown steadily, dropping all of the time a little of the oldest foliage. It is now in a nine-inch pot, five inches deep, and a mat of roots, but shows no signs of resting. I want to treat it so that it will give as much pleasure next winter as during the past. Shall I withhold water and compel a rest, or repot and encourage growth?

We enjoy VICK'S MAGAZINE and find it very helpful.
SUBSCRIBER.

This plant makes roots very rapidly and has to be repotted frequently. There is no object in giving it a rest. It is better to water it thoroughly and spray the foliage every day, and then it will continue to grow steadily, improving every week.

**

Failure of Clematis.

Will you explain what causes my clematis plants to rot even with the ground and die, after they shoot and bloom? In many instances the roots are preserved and sprout again the next year. The plants may be thrifty, full of blossoms, and all at once the leaves turn dark and the plant is dead to the roots. I notice above the roots the stem is dark and the bark is rotten. I noticed the same thing in some of the yards of my neighbors. My plants are set along the porch, two feet away from it, in a rich sandy loam. Any suggestions offered on this line will be appreciated.

Sunbury, Pa.

MRS. C. B. W.

Our correspondent, after writing this note and receiving the May number of the MAGAZINE probably noticed what appeared on page 240, in relation to "The Clematis Trouble." The facts in relation to the general nature of the trouble are there clearly stated, and now careful observations, the present season, ought to make us acquainted to a certainty with the cause, and, perhaps, lead to some means of prevention.

**

Scale Insect.—Gooseberry and Currant Worms.

Please let me know what will kill the scale louse on apple trees, and the worm on gooseberry and currant plants.
Urbana, Ill.

MRS. M. C. M.

In spring, before growth starts, trees infested with the common oyster-shell scale can

be sprayed with the following mixture: Concentrated lye, one pound, sulphur one and one half pounds, water three gallons. The young of these insects also hatch out in June and July, and the trees may then be sprayed with kerosene emulsion, but not with the formula first mentioned, as it will injure the foliage.

Gooseberry and currant worms can be destroyed by dusting the bushes with white hellebore. Commence its use as soon as a worm is seen, and repeat the operation whenever needed. The hellebore can be used dry, putting it on with a dredging box, when the dew is on the foliage or after sprinkling the leaves. Or the hellebore can be mixed with water and sprayed on the plants, using one ounce to three gallons of water.

**

A Troublesome Beetle.

Last year and the year before, our roses and grape blossoms were eaten by a beetle about half an inch long and of a dull yellow and black, striped. Fifteen or twenty would be found on one rose, eating deep into the heart. They could be found at any time of day.

Next us is a field, and after our roses were spoiled, the beetles ate the daisies in the field.

It has been suggested that we work lime into the soil before the bugs appear on the flowers, but we do not know whether to do that or whether to simply spread it on the soil, or whether to use lime water.

Let me know, if you can from my description, what to do for them, please. Also if it is too early to commence operations against them.

They do not eat the leaves, nor do they eat the scentless roses, or any other plant than the roses and grapes.

Kindly let me know about the matter at your earliest convenience.

MRS. W. H. M.

Evergreen, N. Y.

As the description here given does not apply to any insect known by the editor, the letter was sent to Mr. E. P. Felt, State Entomologist, Albany, N. Y., with a request for any information he might be able to give. The following is Mr. Felt's reply:

I do not now recall an insect which the description fits perfectly both as to habits, color and size. It is barely possible that the pest is the rose beetle, though I admit that it does not fit the description very well, but was selected as probably the one by a process of exclusion. I wish the writer would send specimens. I doubt very much the efficacy of lime or lime water as a preventive of attack in this manner. Probably the only satisfactory remedy will be found in handpicking or else spraying with a contact insecticide. One half pound of whale oil soap in a gallon of water will kill rose beetles, and would probably be effective against this pest, whatever it be. Could specimens be sent next summer?

FAMILY COZY CORNER.

Some said, "John, print it"; others said "Not so."
Some said "It might do good"; others said "No."

—Bunyan.

Home Help.

You will find that lovers of flowers and the beauties of nature, also love to beautify their homes, and you will be apt to see lovely center-pieces under the glass bowl of cut-flowers that adorns the table, worked by their own hands, and pretty doilies and carving cloths, etc. It is a laudable ambition to wish to ornament and decorate one's home, and when we see a house-wife who can combine the useful and beautiful, she is a real benefactor in her home; for such things refine and educate children—young daughters and sons in a family—and it does not take wealth to create such an atmosphere in a home, but it does take a wise, loving mother, who takes the time to beautify and surround her loved ones with refining influence.

It is a great saving of table linens, and especially the large cloths; to have a number of the smaller pieces, such as tea-tray cloths and covering-cloths. They not only ornament, but save the wear and tear of a handsome damask table cloth, besides the laundry bill, which is quite an item. It soon wears out a cloth to have it laundered often, and these small pieces prevent getting stains and spilt coffee, and the carving-cloths protect the cloth from the meat-dish. They should not be elaborately embroidered, but simply outlined, and butcher's linen is a good material to make them of; hem-stitch about an inch wide hem, and embroider a pretty running vine above the hem. In the center-piece it can be more elaborate, pretty violets, bunches of narcissus, or French pinks. Much care must be taken in the matter of laundering these pretty table pieces so as not to fade them, and to have the proper stiffness. I wash them in a bowl of warm suds made by dissolving a tablespoonful of pearline in the water and rub them out quickly in this, and rinse them through several clean warm waters, then while damp, iron on the wrong side with hot irons until they are quite dry so they may be stiff enough. This will not fade the most delicate colors, and they will be an ornament to any table.

BY KENTUCKIENNE.

**

Some Perennial Plants for the Northwest.

Dakota is subject to many drawbacks in regard to floriculture. I have studied for years to find flowers that would succeed here and I have found a number of annuals and some perennials.

Rudbeckia Golden Glow is hardy enough for even this climate with its extremes of heat and cold, almost flood and drouth, high winds and scorching suns. I have tried this and it has lived through one of the most open winters, and these are far more trying than a colder one with snow for a covering. It has not only lived but increased very much and could be made into half a dozen or a dozen roots as large as it was when it came to me a little more than a year ago. It was set in the spring.

A white perennial phlox has also lived through the vicissitudes of this trying climate; this to, was set in the spring. I understand that the fall is considered the correct time, but those set last fall have failed to come up, so I conclude that the spring is the best season for such work.

Some varieties of Iris will grow and flourish here; these bloom so very early in the spring they are valuable to have.

Many varieties of paeonies succeed, and will stand all sorts of neglect and almost abuse. These plants are not only pretty when in bloom, but in this prairie section where shrubs and trees are not, the handsome foliage of the paeonies are a feature of attraction.

Tulips are a stand-by, and cannot be had in too large numbers.

The little scilla, too, is a lovely little thing and is just right for this section of the country. This is very dainty for cemetery planting, not white to be sure, but so delicate and dainty, it makes a blue cover for our loved ones, laid low on Mother Earth's warm bosom. It blooms so early, before it would be possible for any other thing to grow, it is of extra value. I have never succeeded with snowdrops or other bulbs of the sort out of doors here.

The old fashioned clove currant, is also hardy enough for us here. This makes a fine shrub and its stems closely set with fragrant yellow flowers is a thing very much to be desired. It should be set in the fall. I have found these plants unable to stand re-setting after once leaving out in the spring.

Some varieties of roses do excellently, the old fashioned yellow rose especially, and those not so hardy may be grown and taken up in the winter or covered well and so be preserved.

The Virginia Creeper is hardy, but it will not always grow by a building. I had some roots a few years ago and these were set right in a good garden, to become established and acclimated, then later to be set by the house. It is said in this way the vine may be transplanted and made to live here and I have seen some very graceful vines of the sort making beautiful Dakota Homes.

Another vine which can hardly be classed as a perennial and yet which once sown comes up every year thereafter, is the wild cucumber. This grows luxuriantly and fills a long felt want in this treeless, shadeless section. The seeds should be sown in the fall or else be filed so they will sprout in the spring; it is an easy matter however to sow the seed by porches or windows in the fall, for it seems as though there is always more time then than in the spring.

The fragrant shrub valerian thrives well, and its fine foliage make it very desirable for bouquet, etc. It is also an attractive feature on the lawn, making a low growing, but very pretty shrub.

I should like to hear from other Dakotans in regard to perennials which may be successfully grown here.

South Dakota.

ROSE SEELYE-MILLER.

**

My Rose Bushes.

When I laid out my garden at the new home in the country, to which we had moved from the city, my dearest and most intimate friends each sent me something hardy to set therein, a living reminder of their friendship and love for me. The plants were roses, and I straightway called each by the name of the giver. That was six years ago, and the bushes have grown and prospered. I prize these old-fashioned beauties more than all the hybrids.

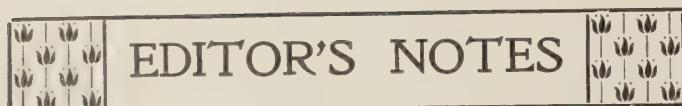
I never had a garden before, having always lived in a city. I am so fortunate as to have for my neighbor an old gentleman, whose own box-bordered garden is the same as it was fifty years ago. He gave me my first instructions in the care of my roses, so that I have very little trouble with their enemies.

When the leaf begins to unfold, I go out early in the morning while the dew is still on them, and with a dredging box (such as we use in the kitchen), filled with white Hellebore, shake it liberally over the bush. In about three days, when the leaves are a little further expanded, repeat the operation, and once again when they are fairly open. It is the thorough dredging while the leaves are wet, that ensures the success of this method.

Z.

**

A  on the wrapper of the MAGAZINE means your subscription expires this month. Please renew promptly.



EDITOR'S NOTES

Celery in California.

The shipments of celery from the California Orange Co. celery fields during the season closed in February, amounted to 1100 car loads. This new industry has been built up on a large scale in a short space of time.

**

Our Colored Plates.

issued can be fairly estimated. Ample preparations in this line are now being made for the future, and the beauty, usefulness, and interest in this feature of our publication will increase.

**

Mr. Luther Burbank and California Wild Flowers.

in the interests of floriculture. It is doubtful if Mr. Burbank's efforts in this particular sphere, will be productive of as good results as has his work among fruits.

**

Garden Cultivation of Roses.

treat the subject so well and so fully as has been done by Mr. Henry A. Siebrecht, and published in the *Bulletin of the American Rose Society*, and which is republished this month in our department of "Gleanings." It may be read with interest and profit both by beginners and experienced growers.

**

A New Hybrid Gladiolus.

first hybrid of value between *Gladiolus cruentus* and a garden variety. The flowers are over five inches across, widely open, and nearly round in outline, the petals being very broad. The color is a "rich crimson with deep, intense shading in the throat, and broad white blotches on the lower petals." The plants are vigorous, leaves broad and numerous. The corms increase rapidly. We are not informed who raised this seedling.

**

Asparagus Sprengerii.

Sprengerii being given as a synonym. The French Nicholson, *Dictionnaire d'Horticulture*, assumes two species under the two names, and attempts to make a distinction in the descriptions, but this is poorly drawn and unsatisfactory. The origin of *A. falcatus* is given in that work as India, and that of *A. Sprengerii* as Natal. The leaves of *A. falcatus* are mentioned as sword-shaped; those of *A. Sprengerii* as nearly straight or lightly sword-shaped. In the *Cyclopedia of American Horticulture* it is said of *A. Sprengerii*, "introduced to horticulture by Dammann & Co., Italy, in 1890, and named for their collector, Herr Sprenger." Its native locality is given as Natal. The same work gives South Africa and tropical Asia as the native countries of *A. falcatus*. The question is whether the plants bearing these different names are not identical and

the German gardeners right in so considering them. What is their authority for taking this position is not known to us. The fact that the name *Sprengerii* was applied by a nursery and trading firm, lends support to the idea that it may be merely an unwarranted horticultural appellation.

**

The Humming-Bird Picture.

illustration of the humming-bird in the department of Nature Studies, in this issue. It is a worthy achievement in photographic skill to take on the wing a picture of one of these birds of lightning-like movements. The faint, shadowy wings are as well defined as ever they appear in actual vision, and one cannot fail to appreciate the artistic effect that is realized in this production. Our readers are indebted to the skill and enthusiasm of Mr. F. H. Beach, Jr., for this and other excellent illustrations that embellish our pages from month to month.

**

American Rose Society Summer Exhibition.

The first summer exhibition of the American Rose Society will be held in the Winter Garden of the Eden Musée, New York City, June 12, 13, and 14. This show will be of much greater interest to the public generally than that held in March, as this month the yard garden roses will make a large, and probably the greater part of the collection. A very full schedule of prizes is published which can be obtained by applying to secretary, Mr. Leonard Barron, 136 Liberty street, New York. The annual subscription to the society for active members, that is growers, gardeners, and intending exhibitors, is \$3.00; for associate members, \$1.00; life membership, \$50.00.

Announcement is made that the *March show for 1901, will be held in New York. The schedule will be essentially the same as that of 1900, copies of which may be had on application to the secretary.* The June exhibition will be a great attraction to strangers who are admirers of the rose to visit New York at the time of the show, and those who are planning to make the trip this month should time their visit so as to see the great display.

**

Insects Injurious to Maple Trees.

Dr. E. P. Felt, New York State Entomologist, has prepared an excellent paper on the subject here named as a part of the Fourth Annual Report of the Commissioners of Fisheries, Game, and Forests, of the State of New York. This paper, published in handsome style with numerous engravings, and three full-sized (quarto) colored plates is sent out as a separate "extract." The plates are handsome chromolithographs, and with the explanations and the accompanying text, very full information is given of the character and habits of the principal injurious insects of the maples, and incidentally other shade trees, of streets and parks. The insects are shown in the plates in their different forms or stages, together with the character of the injury which they inflict on the trees. The species illustrated in this manner are the following: The white marked tussock moth, the forest tent caterpillar, the leopard moth, the maple borer (*Sesia*), the sugar maple borer (*Plagionatus*), maple tree pruner, and cottony maple tree scale insect. The illustration, being correct in form, size, and color will prove very helpful in identifying the insects to those unacquainted with them. Instructions are given in the best methods of combating these insects and the publication must prove of especial value to superintendents and others having charge of city and village streets, parks, and cemeteries. The publication is issued from the New York State Museum, Albany, N. Y.

During the past month we have mailed each subscriber a circular letter containing "trial subscription cards." These were sent that you might receive the MAGAZINE another year free and at same time introduce VICK'S MAGAZINE to your friends and place them in a position to receive and enjoy the MAGAZINE for three months. The cards which have been returned show that many have kindly acted upon our suggestion, and we request those who have not done so to please deliver the cards soon as convenient. If any person did not receive the cards, or wish more, they will be mailed upon application.

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Ants in the Lawn.—A tablespoonful of bi-sulphide of carbon poured into holes six inches deep and a foot apart, and immediately covered with earth, will destroy the ants. Keep the liquid away from the fire.

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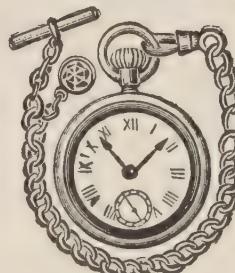


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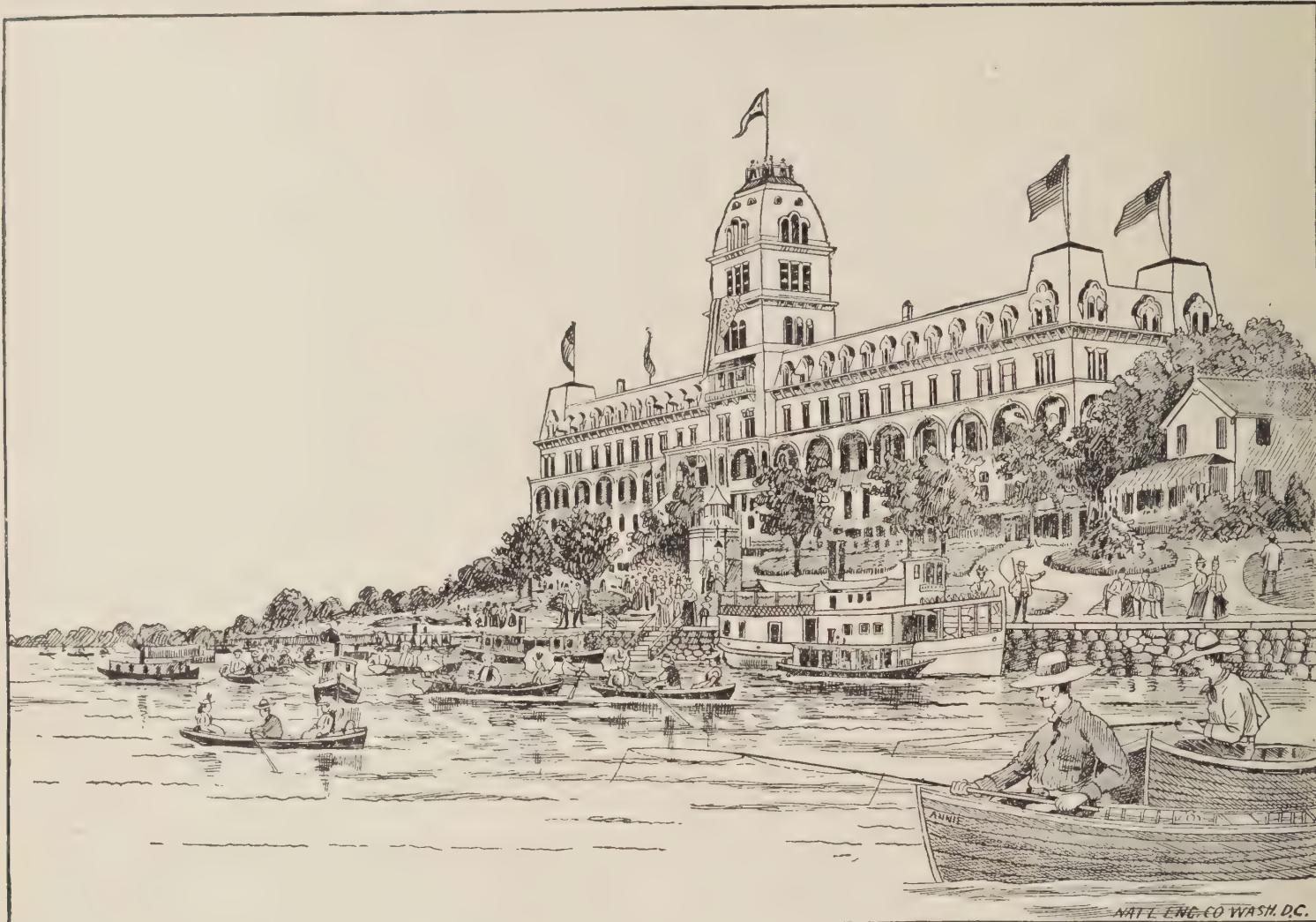


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FIRE-WORKS

See our offer on 4th Cover Page



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CONCERT GRAND
UPRIGHT

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7½ octave.
Double lever, grand repeating action.

Grand scale, over-strung bass, three strings to each note in the middle and treble registers.

The scale is the same as in grand pianos, with the largest size of sound board and strings of greatest length, thus giving the greatest volume and power of tone.

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Choice of superior Circassian walnut, rich figured mahogany, genuine quartered oak, and ebonized.

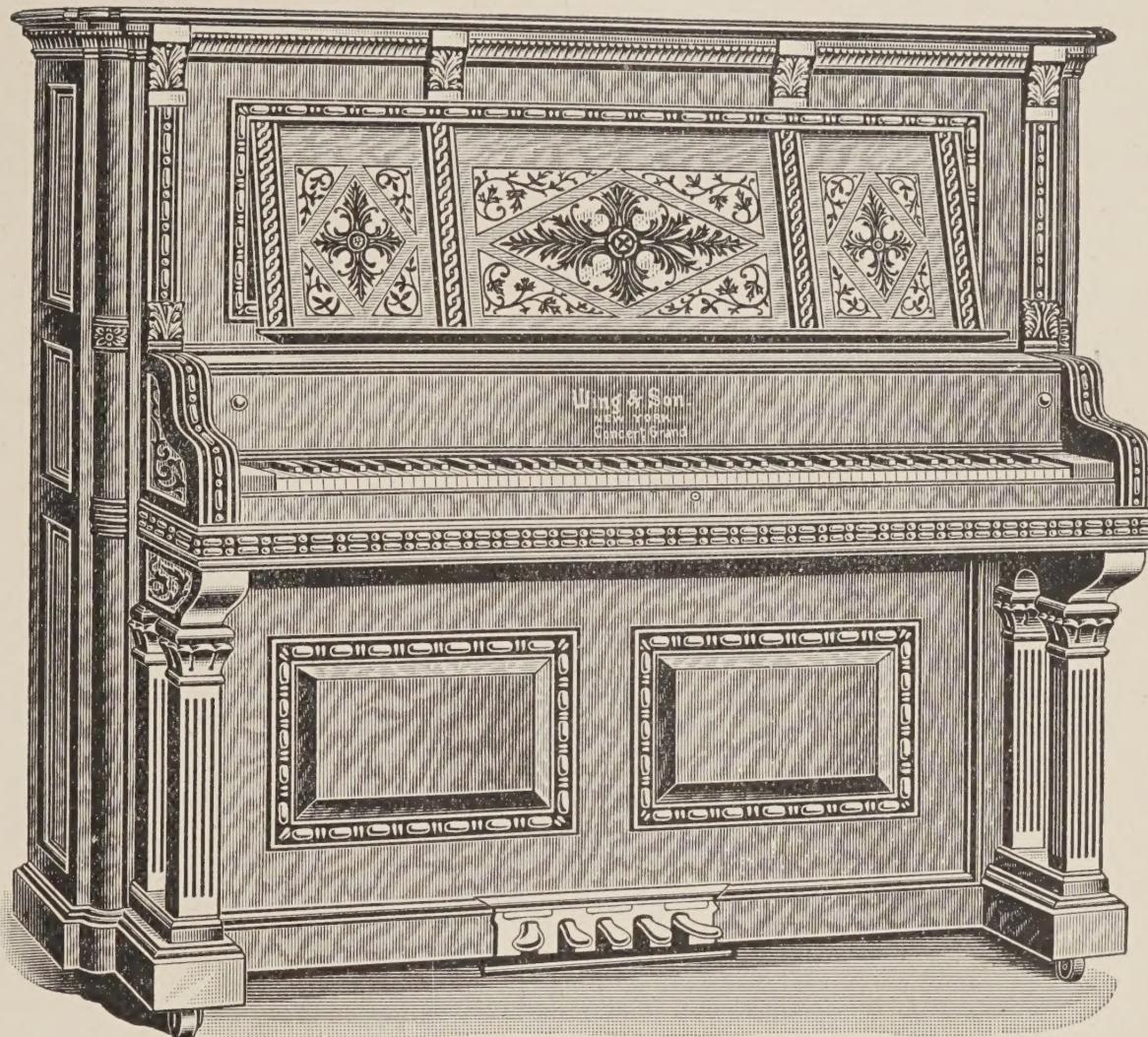
KEYS—Of best ivory and ebony.

Special Features and Improvements.

Our special method of tone regulating (treating the hammers) insures great sweetness and singing quality of tone from the beginning and makes the tone more lasting. Our method of making the wrest plank of five thicknesses of hardest rock maple, and our extra heavy metal plate construction, give great solidity and strength, and cause the piano to stay in tune for a very long time.

The Wing Piano action is patterned after the perfected double lever, grand repeating action, to secure the greatest strength and power and greatest repeating qualities. Every note acts instantaneously and repeats perfectly, so that after a note is played the same note may be sounded again immediately without taking the finger from the key.

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We desire to call special attention to this improvement. The instrumental attachment enables any ordinary player to imitate perfectly the tone of the mandolin, guitar, harp, zither, and banjo. Music written for these different instruments, with and without piano accompaniment, can be rendered just as acceptably by a single player on the piano as though played by a parlor orchestra.

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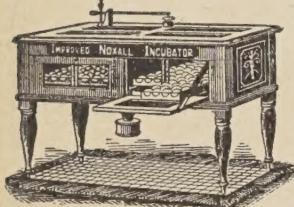
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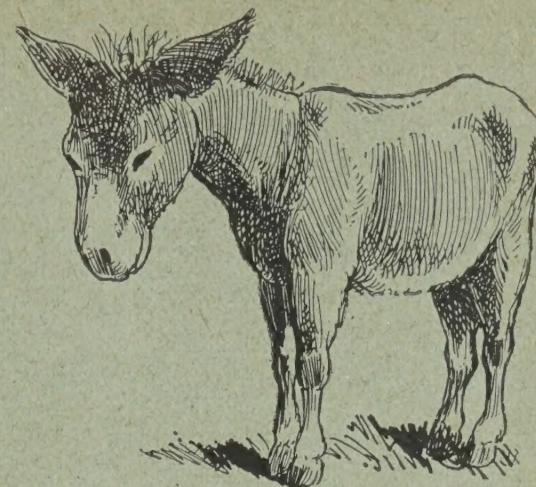
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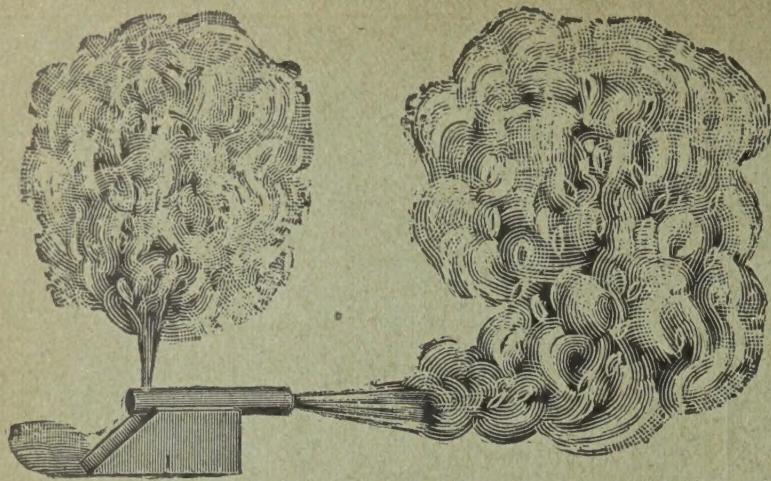


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